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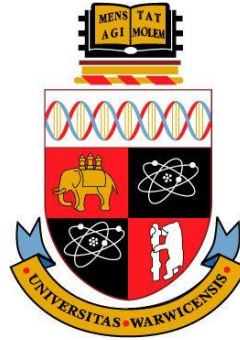
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# **CUSTOMER PERCEIVED SWITCHING BARRIERS AND THEIR IMPACT ON LOYALTY AND HABITUAL REPURCHASE: A STUDY OF PURE-PLAY ONLINE RETAILERS IN THE UK**

**BY:**

**EZLIKA MOHD GHAZALI**

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A Thesis Submitted in Partial Fulfilment of the Requirements for  
the Degree of Doctor of Philosophy  
in Marketing

Warwick Business School  
The University of Warwick, Coventry  
United Kingdom

2011

## DECLARATION

This is to declare that:

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  - Ghazali, Ezlika, Arnott, David and Harris, Lloyd. (2009). Online Switching Barriers and Inducements: Some Preliminary Findings. MSM Seminar. Warwick Business School, the University of Warwick, Coventry.
  - Ghazali, Ezlika, Arnott, David C. and Harris, Lloyd. (2008, 6-8 November). Conceptualising Online Service Switching Barriers and Inducements. Paper presented at the 22nd Service Conference and Workshop, Royal Automobile Club, London.
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## DEDICATION

This PhD thesis is dedicated to:

*My precious children – Rahil and Imaan*

*&*

*My dearest brother – Abu Qasim*

*They are my source of inspiration and strength.*

*I am truly blessed to have them in my life.*

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## **ABSTRACT**

Retaining customers has become extremely crucial in the online environment due to high competition levels. Although the role of switching barriers has been examined quite extensively in the offline marketing environment, their presence and importance in predicting customer retention are poorly understood in the online retail context.

This thesis aims to contribute towards a better understanding of the nature, dimensions and consequences of customer-perceived switching barriers in the context of pure-play online retailing. It also investigates the role of online switching barriers to influence customer retention in this context. Based on the theory of social exchange, a framework depicting the interrelationships among perceived switching barriers, satisfaction, loyalty and habitual repurchase are proposed. Two categories of switching barriers are examined, namely, perceived switching costs and attractiveness of available alternatives. The research framework predicts the main effects, indirect effects and moderating influences of these switching barriers.

The data were collected through self-administered questionnaires from over 550 customers of pure-play online retailers serving the United Kingdom market. In general, the strategy for assessing the psychometric properties of the measurements is divided into two parts: measurement model calibration and measurement model validation. These involve Exploratory Factor Analysis (EFA), Confirmatory Factor Analysis (CFA) and Multi-group CFA. All proposed hypotheses are tested using Structural Equation Modelling (SEM). Furthermore, the orthogonalisation approach is utilised to test for moderation effects in the model.

Five dimensions of online perceived switching costs are identified: learning costs, search and evaluation costs, uncertainty costs, brand relationship loss costs and artificial costs. With respect to the alternative attractiveness construct, three dimensions are identified: retailer indifference, alternative awareness and alternative preference. The findings confirm the importance of customer-perceived switching barriers in predicting customer retention with respect to pure online retailers. This finding challenges the notion that customer-perceived switching costs are insignificant in influencing online purchase decision making due to the open architecture of the internet market.

Most importantly, there are three novel and interesting findings in this study that add to the body of literature: first, the 'catalyst' role of online perceived switching costs in precipitating and strengthening the influence of satisfaction on habitual repurchase; second, the 'neutralising' role of perceived switching costs in offsetting the influence of attractive alternative on habitual repurchase; and third, the mediating role of loyalty in the relationship between alternative attractiveness and habitual repurchase. Limitations of the study and suggestions for future research are also provided.



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AC	- Artificial Costs dimension of PSC
AGFI	- Adjusted Goodness-of-Fit
AMOS	- Analysis of Moment Structure (an SEM software)
ANOVA	- Analysis of Variance
AP	- Alternative Preference dimension of ATA
ATA	- Alternative Attractiveness
AVE	- Average Variance Extracted
B	- No. of Bootstrap Sample
B2B	- Business to Business
B2C	- Business to Consumer
BPS	Business Population Survey
BR	- Brand Relationship Loss dimension of PSC
Bricks-and-click	- <i>“A business combining online and offline presence”</i> (Chaffey, Mayer, Johnston and Ellis-Chadwick 2003, p. 164)
Bricks-and-mortar	- <i>“A traditional organisation with limited online presence”</i> (Chaffey <i>et al.</i> 2003, p. 164)
CBSEM	- Co-variance based Structural Equation Modelling
CFA	- Confirmatory Factor Analysis
CFI	- Comparative Fit Index
CMV	- Common Method Variance
CRM	- Customer Relationship Management
df	- Degree of Freedom
EFA	- Exploratory Factor Analysis
GFI	- Goodness-of-Fit
HAB	- Habitual Repurchase
HMR	- Hierarchical Regression Analysis
IFI	- Bollen's Incremental-Fit-Index
IS	- Information Systems
ISST	- Internet Self Service Technology
KMO	- Kaiser-Meyer-Olkin Measure of Sampling Adequacy

LC	- Learning Costs dimension of PSC
LOY	- Customer Loyalty
LR	- Logistic Regression
MCFA	- Multi-Group Confirmatory Factor Analysis or Multi-Sample Confirmatory Factor Analysis
ML	- Maximum Likelihood
MRA	- Moderated Regression Analysis
MVs	- Measurement Variables
NFI	- Bentler-Bonett Index or Normed-Fit Index
NNFI	- Non-Normed Fit Index or Tucker-Lewis Index
OFS	- Office of National Statistics
OFT	- Office of Fair Trading
ORTH	- Orthogonalisation
PCA	- Principal Component Analysis
PLS	- Partial Least Square
PSC	Perceived Switching Costs
Pure-play internet retailer	- A retailer with principally an online presence (Chaffey <i>et al.</i> 2003, p. 164)
r	- Reversely worded item
RFI	- Relative-Fit Index
RI	- Retailer Indifference dimension of ATA
RMSEA	- Root Mean Square Error of Approximation
RP	- Retailer Preference dimension of ATA
SAT	- Customer Satisfaction
SE	- Standard Error
SEC	- Search and Evaluation Costs dimension of PSC
SEM	- Structural Equation Modelling / Structural Equation Model
SD	- Standard Deviation
Sig.	- Significance Level
SPSS	- Statistical Package for Social Science
SRMR	- Standardized Root Mean Square Residual
TRA	- Theory of Reasoned Action

UC	- Uncertainty Costs dimension of PSC
URL	- Universal Resource Locator
WBS	- Warwick Business School
$\chi^2$	- Chi-Square Goodness-of-Fit Test
$\chi^2/\text{df}$	- Chi-Square to Degree of Freedom Ratio
$\Delta\chi^2$	- Change in Chi-Square value
$\Delta\text{df}$	- Change in Degree of Freedom value
$\Delta\text{CFI}$	- Change in Comparative Fit Index value

# Chapter 1

## INTRODUCTION

The use of business-to-consumer (B2C) e-commerce by a large number of retailers has revolutionised many aspects of exchanges between customers and firms (Fuentes-Blasco, Saura, Berenguer-Contriacute and Moliner-Velaacutetezquez 2010). This retail format has proven to be a very important channel of choice for customers in the United Kingdom (UK). For instance, in 2010, Forrester's research report indicates 72 per cent of internet users in the UK purchased products or services online (Clements 2011). The online sales in the UK also increased from €25 billion in 2009 to €30 billion in 2010 (Clements 2011), with the British online population making more online purchases than most European countries (OFCOM 2010). These trends reveal the enormous potential of electronic commerce to be an alternative way of purchasing to the traditional offline brick-and-mortar retail channels (Tsai, Huang, Jaw and Chen 2006).

However, strategies to both acquire and retain online customers are not particularly straightforward, especially for pure-play internet retailers. A study of internet buyers and sellers by Harris and Goode (2004, p. 139) notes that *"generating loyal customers online is both more difficult and important than in offline retailing"*. It has also been argued that the cost of acquiring new customers can be up to five times more expensive than maintaining

existing customers (Bauer, Grether and Leach 2002). Furthermore, maintaining existing customers is cheaper than maintaining newly acquired ones (Harris and Goode 2004; Reichheld, Markey and Hopton 2000; Reichheld and Schefter 2000; Tsai *et al.* 2006). Therefore, customer retention has become “*an economic necessity*” for retailers operating in the online environment (Balabanis, Reynolds and Simintiras 2006, p. 214). Competition in the online marketplace requires that e-retailers continually seek out various drivers of customer retention and loyalty. In facing high competition and increased customer expectations, e-retailers must focus on identifying, understanding, nurturing and retaining their customers (Anderson and Srinivasan 2003; Reichheld and Schefter 2000).

With regards to drivers of customer retention, customer satisfaction is widely regarded as the leading and the most important factor predicting customer loyalty and behavioural intention to purchase, both in the online and offline retailing environments (Emanuelsson and Uhlén 2007). However, it is interesting to note that although customer satisfaction has been commonly assumed to be a prerequisite to customer loyalty; it does not automatically predict loyalty. Numerous past studies have established imperfect correlations between customer satisfaction and customer loyalty, and the strengths of the relationship between these two constructs remains extremely questionable (e.g., Balabanis *et al.* 2006; Emanuelsson and Uhlén

2007; Gremler 1995). Studies suggest more factors contributing to the variations in customer retention than customer satisfaction alone. Customer satisfaction is not sufficient to retain customers, due to the fact that satisfied customers often still seem to defect (Reichheld 1996). This is even more true in the online market environment, where the *“competing offer is just a few clicks away”* (Shankar, Smith and Rangaswamy 2003, p. 154). As noted in one particular study, another factor making online customer retention more complicated is the *“non-personal”* and *“transaction-based”* nature of relationships (Bansal, McDougall, Dikolli and Sedatole 2004, p. 290). In contrast, in the offline context, there is greater potential for the building of relationships. Thus, a better understanding of factors influencing customer retention in the online environment is needed.

The factors enticing a customer continually to return to a particular online retailer website remain somewhat unclear. A study of offline service customer retention by Ranaweera and Prabhu (2003) has noted that there are two principal strategies to building customer retention. The first is to improve customer satisfaction, so that the customer ‘wants’ to stay with the firm. The second is to increase the perception of ‘switching barriers’, which impede customer switching. These strategies could also be applied to the online retail setting.



Switching barriers consist of various types and components. One important component is perceived 'switching costs', described as those costs, financial and non-financial, including investments of time, money and/or effort, perceived by customers as factors that make it difficult to purchase from a different firm (Gremmler 1995; Guiltinan 1989). While switching costs in the online market is an important antecedent of customer retention, the subject is perceived as challenging due to the intense competition in the internet market, where customer acquisition costs are higher and the relative ease with which a customer can switch to a different retailer. In addition, though perceived switching costs are viewed as an important construct in many research articles, and while there is a growing body of literature on this concept, still relatively little attention has been paid to the construct. Indeed, there is a high degree of vagueness as to its nature as well as a relative lack of understanding of its consequences and dimensions (Burnham, Frels and Mahajan 2003; Jones, Mothersbaugh and Beatty 2002). It has been contended that the ambiguity surrounding the switching costs construct stems from the different way in which the concept is operationalised and measured (Yanamandram and White 2006b). This ambiguity merits further research.

Another component of switching barriers not frequently considered in online customer retention studies is 'alternative attractiveness'. This term

refers to customer perception of the extent to which viable competing alternatives are available in the marketplace (Jones, Mothersbaugh and Beatty 2000). As mentioned previously, although customer satisfaction is regarded as an important determinant, its impact on retention is inconsistent. Observed customer retention by a firm can be due to the experience of satisfaction or may be linked to lack of a viable alternative firm to which to switch. Perception of alternative attractiveness is highly relevant as a function of customer retention in the online market, where competition is intense. In addition, the open architecture of the online marketplace creates a level playing field for firms (irrespective of size).

The theoretical context for studying the role of customer perceived switching barriers to customer retention and the causal inter-relationships between concepts can be found in the Theory of Social Exchange from the discipline of social psychology (Crosby, Evans and Cowles 1990; Johnson and Selnes 2004; Morgan and Hunt 1994; Nielson 1996; Patterson and Smith 2003). Particularly relevant in this respect is Investment Theory, where relationship-specific investments (analogous to the concept of switching costs in marketing studies (Gremler 1995; Li, Browne and Wetherbe 2007)) in firms over time increase the perceptions of the cost of switching to and between competitors (Bell, Auh and Smalley 2005).

There are two main types of internet retailer: pure-play online retailers and retailers with both online and offline operations (bricks-and-click). While increasing emphasis in research and publications has been placed on issues relating to online customer retention in recent years (e.g., Anderson and Srinivasan 2003; Harris and Goode 2004; Ribbink, Riel, Liljander and Streukens 2004; Semeijn, Van Riel, Van Birgelen and Streukens 2005; Shankar *et al.* 2003; Srinivasan, Anderson and Ponnnavolu 2002), most of these studies have not empirically differentiated between issues affecting pure-play internet companies and bricks-and-click companies. It is expected that different types of online retailer will affect satisfaction and customer retention to a certain extent. A recent study by Kwon and Lennon (2009, p. 557), for instance, reveal that *“offline brand image exerts significant effects on online brand image and online customer loyalty”*. Another study by Shankar *et al.* (2003) also concludes that there are differences in terms of loyalty level if a service is chosen online versus offline. Similarly, a dissertation by Holloway (2003) concludes that the customer relationship with bricks-and-click retailers is stronger than with retailers with only a virtual store-front.

Failing to differentiate between these two types of online retailer in a loyalty study may distort the result or lead to over-estimation of relationships in a research model. This is because the brand name, physical presence and tangibility of the retailer's offline branches are likely to enhance a customer's

familiarity with its online counterparts as well as the brand equity of the online store (Pan, Shankar and Ratchford 2002).

### **1.1 RESEARCH GOALS AND QUESTIONS**

Customer satisfaction is regarded as an important factor in customer retention. However, as mentioned earlier, the relationship between satisfaction and customer retention is inconsistent. Against such a background, the general goal of this research is to enhance understanding of other factors involved in building online customer retention; namely, switching barriers. This research focuses on two types of switching barrier that are important in the online retailing environment; customer perceived switching costs and customer perceived alternative attractiveness. In this study, online customer retention is operationalised and measured via two constructs; customer loyalty and customer habit. Customer loyalty is conceptualised as the 'mindful' mode of customer repeat purchase, whereas habit is the 'mindless' mode of customer repurchase.

The chosen research context, i.e. customers of pure-play online retailers, is believed to constitute a unique and challenging setting to achieve a clearer understanding of the role of switching barriers in the online retailing environment. It is also believed that examination of customer switching

behaviour in the context of the pure online environment is important from both academic and practical perspectives.

In simultaneously testing the relationship of satisfaction, switching costs and alternative attractiveness to customer retention, three related research questions are also addressed: 1) Which of these factors is most influential in building customer retention for the pure-play e-retailer? 2) How does the effect of these factors differ across two variables used to measure customer retention; namely, customer loyalty and customer habit? 3) What constitute perceived online switching costs in the minds of customers?

To address these questions, the following specific objectives emerge:

1. To examine and test the constituents and dimensions of perceived online switching costs;
2. To assess the consequence of perceived switching costs in terms of their influence on customer retention, both:
  - a. Directly;
  - b. Indirectly through *customer satisfaction* and customer perceived *alternative attractiveness*;

3. Based on the above objectives (1-3), to develop an integrative conceptual model based on social exchange theory and to empirically examine simultaneously in a single framework the linkages among the above-mentioned variables;
4. To suggest guidelines for managers to assist them in implementing successful online switching barrier management in order to cultivate loyalty and habitual website purchasing.

## 1.2 OVERVIEW OF RESEARCH METHOD

The UK was chosen as the data collection location for this research. The data were collected from customers of pure-play online retailers from the general public of the UK. Most prior studies into the impact of perceived switching barriers in both online and offline contexts have been conducted in the US (e.g. Bansal, Taylor and St. James 2005; Burnham *et al.* 2003; Jones 1998; Jones *et al.* 2000, 2002; Jones, Reynolds, Mothersbaugh and Beatty 2007). Notable exceptions include the UK online study of Balabanis, Reynolds and Simintiras (2006). Other studies were conducted using consumer samples in Germany (e.g. Blut, Evanschitzky, Vogel and Ahlert 2007), Taiwan (e.g. Tsai *et al.* 2006), Turkey (Aydin, Özer and Arasil 2005) and France (Lee, Lee and Feick 2001). In light of the research gaps established in the review of relevant literature, this study may be viewed as the first attempt to investigate online

consumers' perceived switching barriers from the perspective of pure-player online retailers in the UK.

The data for this study were collected at the individual consumer levels via two main survey modes: mail and online. The survey consisted of a self-administered questionnaire, operationalising the above-mentioned latent constructs, which were adapted and modified on the basis of the extant literature. These constructs and their measurement scales were modified and adapted to suit the online context of this research with the help of experts, interviews and pilot testing. The main sample was provided by an online marketing database agency in the UK (Experian Ltd.). The respondents were asked to choose an online retailer from which they most frequently purchased. They were then asked to answer the remaining questions in the questionnaire with reference to their chosen e-retailer.

In general, the strategy for assessing the psychometric properties of the measurement was divided into two parts: measurement model calibration and measurement model validation. For this purpose, the final sample was randomly split into two: calibration sample and validation sample. Under the principle of structural equation modelling, the two-step approach proposed by Anderson and Gerbing (1988) was followed using the calibration sample. Then, within the model validation phase, the measurement model

was further assessed and refined from the multi-sample confirmatory factor analysis perspective. With respect to the indirect effects, the orthogonalisation procedure proposed by Little, Bovaird and Widaman (2006) was strictly followed for moderation testing; and bootstrapping was utilised to assess mediation effects.

### **1.3 EXPECTED RESEARCH CONTRIBUTION**

This section describes the expected contributions of this study from three domains: conceptual, empirical and methodological contributions, as described by Summers (2001, p. 408).

#### **1.3.1 Conceptual and Empirical**

The primary goal of this research is to investigate the role of two components of switching barrier, namely online customer perceived switching costs and perceived alternative attractiveness (Jones *et al.* 2000) in fostering customer retention for pure-play e-retailers. To achieve this, the investment model is applied to an online consumer behaviour research setting. Few studies have to a certain extent done this, but the results have been mixed. Furthermore, according to Farrell and Klemperer (2007, p. 1980), *“empirical literature on switching costs is much smaller and more recent than the theoretical literature”*. Thus, the subject of switching costs in the empirical literature is



where this research makes an important contribution. In addition, this research also contributes to the improved understanding of online customer switching costs, the categorisation switching costs and their psychometric properties.

Despite the extent of research undertaken with respect to switching behaviour, both generally and in online market, none was found that looks at habit issues in customer retention. While habit has been theoretically mentioned by many in the past as being a critical factor in influencing individual attitude and behaviour, it has only been scantily researched. This leaves many ambiguities and doubts as to its definition and antecedents. Building on the theories from social psychology and information systems, this research examines habit in terms of its measurement of and effects on online customers.

Next, the proposed research framework includes several linkages that have not previously been tested: 1) the indirect (interaction) effect of online perceived switching costs on habit through satisfaction; 2) the indirect (interaction) effect of online perceived switching cost on habit through perceived alternative attractiveness; 3) the indirect effect (mediation) of alternative attractiveness on habit via loyalty; 4) the direct effect of online

perceived switching costs on habit; and 5) the direct effect of perceived attractiveness of alternatives on habit.

At the theory testing level, the contribution of this research is expected to be two-fold. First, the study tests scales developed and tested in prior research (with modifications to suit the online context). Second, the study tests the relationships that have been examined in the past (for example, the satisfaction-loyalty linkage; perceived online switching barriers linkages with e-loyalty, and the indirect linkage between perceived online switching costs and e-loyalty).

### **1.3.2 Methodological**

In light of the literature review, the study may be regarded as the first to examine the phenomenon of online perceived switching barriers in the context of pure-play online firms in the UK, extending the model from social exchange theory. The review of literature in this subject area reveals dearth of research specifically investigating the switching costs and alternative attractiveness perception of customers of pure-play e-retailers. Most previous studies on switching behaviours have involved traditional offline contexts, with online studies frequently using samples consisting of a mixture of customers from bricks-and-click and pure-player internet firms, and/or using samples from outside the UK. Thus, it is equally evident that no study has

specifically examined the role of these two switching barrier components in fostering customer retention for pure-play online companies. In this respect, this research is also of value for its contribution to the better understanding the existence and effect of switching barriers in the UK pure-play internet retail market, as well as understanding this market more generally.

### **1.3.3 Managerial**

With respect to managerial contributions, understanding the nature and impact of perceived switching costs and perceived alternative attractiveness on customer retention is of considerable relevance for managers in the B2C pure-play e-retail industry. The results provide insights to managers of online retailers as to how to retain customers in the competitive online marketplace. For example, several distinct dimensions of online perceived switching costs may be unearthed in this research. Managers may consider strategically developing such costs as one way to foster retention. This study also identifies the importance of perceived attractiveness of alternatives as a factor influencing customer retention and suggests how managers of e-retailers might reduce the attractiveness of competitors in the minds of their customers. Another contribution to management is the importance of habitual repurchase in website purchasing. This study operationalised customer retention in the online marketplace from two important aspects

customer loyalty and habit. Suggested in the thesis are a few actions that managers might consider using to address the issue of habitual repurchase in order to build a 'truly' loyal customer base.

#### **1.4 OVERVIEW OF THE THESIS**

The thesis is organised into nine chapters. In addition to summarising the scope of the research, the research objectives and methodology, the present chapter describes the expected contributions of the study. Chapter 2 presents the literature review of the core variables to be explored and included in the research framework. It includes discussion of the underlying theory relevant to the development of the research model; namely, social exchange theory. This is followed by discussion of the different phases of customer loyalty and customer satisfaction. The chapter also includes discussion of 'switching barriers' as the overarching concept in the study, composed of 'perceived switching costs' and 'perceived alternative attractiveness'. Next, discussion focuses on 'switching costs', their typology and categories, as well as their implication in marketing, management and information systems. This is followed by discussion of 'perceived alternative attractiveness' and its implications in the online market. Finally, the 'customer habitual repurchase' concept is considered, along with its formation and importance in the online

market. The chapter concludes by detailing some of the limitations of past research and identifying a number of issues associated with those limitations.

Chapter 3 details the author's research hypotheses to be tested, leading to the development of the research framework. This includes the conceptualisation of perceived switching costs as multidimensional in nature, the choice of switching cost categories as well as the inclusion of 'habitual repurchase' as the final endogenous construct. The fourth chapter provides a comprehensive review of the research methodology, where the development of the survey instrument is discussed; the actual data collection process as well as the analysis procedure developed for this research are also detailed.

Chapter 5 then presents a descriptive analysis of the sample, in which the key features of responses are described. This is followed by Chapter 6, which examines in greater depth the measurement purifications and refinement procedure of the data via exploratory and confirmatory factor analyses. Chapter 7 presents the results of the structural equation modelling procedure used to test the proposed hypotheses. Next is Chapter 8, which provides a detailed discussion of the research findings in relation to the original research objectives. Finally, Chapter 9 concludes the thesis by providing a discussion of the theoretical and managerial implications of the

findings. This chapter also addresses the limitations of the research and provides suggestions for possible future research.

## **Chapter 2**

### **LITERATURE REVIEW**

#### **2.1 INTRODUCTION**

The review of literature draws from the extant literature on switching barriers and customer loyalty to form a basis for developing the e-retailer loyalty research framework and advancing the research hypotheses. The review of literature first briefly discusses the background of the research. This is followed with discussion of social exchange theory, which provides a theoretical lens through which the interactions and linkages of switching barrier constructs and other variables in the model are viewed. Then presented is the relevant literature on customer loyalty and satisfaction, followed by switching barriers and components: switching costs and alternative attractiveness. While the focus of this research is mainly on online switching costs, the review of related literature begins with discussion of traditional (offline) switching costs. This is because these costs provide the basis upon which the conceptualisation of and measurements for the research are developed and adapted. Next, the relevant literature on habit is presented and discussed. Finally, some limitations of past research are highlighted before the chapter is summarised.

## 2.2 SOCIAL EXCHANGE THEORY: COMMITMENT TO PERSONAL RELATIONSHIP

Consumer behaviour researchers have frequently consulted social exchange theory literature to understand consumer loyalty and individual consumption behaviour as well as the factors underlying customer retention. Social exchange theory also provides the theoretical basis for satisfaction, commitment or loyalty, switching costs and attractiveness of available alternatives in the marketing literature (Gremler 1995).

The theory argues that social actions between human beings result from exchange processes in which the reason for the exchange is mainly to maximise reward (or benefit) and minimise cost (or risk). Social actors will evaluate the cost of a relationship; when the cost outweighs the reward, the relationship will be terminated or the individual will leave the relationship. In contrast, when the reward outweighs the cost, then the individual will remain committed to the relationship.

Social exchange theory comes from the studies of Emerson (1962), Blau (1964, 1986) and Homans (1958) in the social psychology literature. In this literature, loyalty is better known as *commitment*, a central concept in social exchange theory defined as *“intent to persist in a relationship, including long-term orientation toward the involvement as well as feelings of*



*psychological attachment*” (Rusbult, Martz and Agnew 1998, p. 359). All individuals show a varying level of allegiance (commitment) toward many relationships. It may be in their relationship with family members (spouse, parents or children), friends, religion, country or employer. People may also show bonds or loyalty towards television programmes, football teams, a brand or a retailer. The operationalisation of a commitment construct in the social psychology literature generally refers to the likelihood of a social actor (i.e. a partner) remaining in a relationship that has been started (Johnson 1982; Kelley 1983; Rusbult 1980) or an estimation of the probable continuance of a relationship (Surra 1985).

Described below are five frameworks for explaining the development of personal commitment which seem to dominate this literature.

### **2.2.1 Utilitarianism vs. Reinforcement**

Blau (1964) positioned his earlier work on social exchange in terms of a utilitarian view of social behaviour, in which the behaviour of social actors is mainly driven by analysis of *expected* rewards that can benefit them. From this perspective, individuals tend to select an alternative course of action that maximises benefit or minimises cost. In contrast, Homan’s (1973) reinforcement view of relationship formation suggests that individuals, in terms of their relations with others, behave more out of habit or sentiment

than from reasoned decision making. In addition, as compared to the utilitarian view, in which individuals are forward looking, the reinforcement view suggests that they look backward, in that they value what has been rewarding to them in the past. These past rewards predict commitment to and continuance of relationships (Emerson 1972; Homans 1973). The reinforcement principle in part was derived from the operant conditioning theory of B. F. Skinner in the 1960s, to explain habit persistence in exchange relations (Cook and Rice 2006).

### **2.2.2 Social Uncertainty**

Later on, the theory evolved to include social uncertainty<sup>1</sup> as a key underlying factor of commitment. According to Cook and Emerson (1984, p. 13), uncertainty refers to *“the subjective probability of concluding a satisfactory transaction with any partner”*. The theory argues that as social uncertainty increases, the tendency for certain exchange behaviour motivated by ‘loss aversion and [on a] status quo bias’ also increases (Rice 2002). Uncertainty about the probability of dissatisfaction as well as the amount of loss increases the likelihood of commitment between exchange partners (Cook and Rice 2006). Therefore, social uncertainty also has been shown to boost commitment (Kollock 1994).

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<sup>1</sup> Social uncertainty in the form of information asymmetries (Kollock, 1984, p. 313).

### 2.2.3 Affective Component and Emotion

Social exchange theorists have also included affect or emotion either as a consequence of (Molm, Takahashi and Peterson 2000) or an antecedent to behavioural commitment (Lawler 2001; Lawler, Thye and Yoon 2000). In other words, the association between affect and commitment is recursive, in that affect or emotion may either be a driver of commitment or vice versa. Emotion may also influence behaviour patterns to the extent that possible alternatives are no longer appealing in the eyes of the social actor in an exchange relation (Cook and Rice 2006).

### 2.2.4 Group Cohesiveness

In contrast, Levinger (1991, 1999) proposes a model called *Social Exchange Model of Cohesiveness*, highlighting three main forces that promote or dampen cohesiveness:

1. *attraction forces* or the strength of magnetism that guide one toward a relationship;
2. *barrier forces* or the factors that prevent one from leaving a relationship;
3. *alternative forces* or the factors that pull one away from the relationship.

Levinger's framework of group cohesiveness had a profound impact on research and literature with regards to 'maintenance and dissolution of relationships' (Johnson, Caughlin and Huston 1999; Previti and Amato 2003).

### 2.2.5 Investment Model

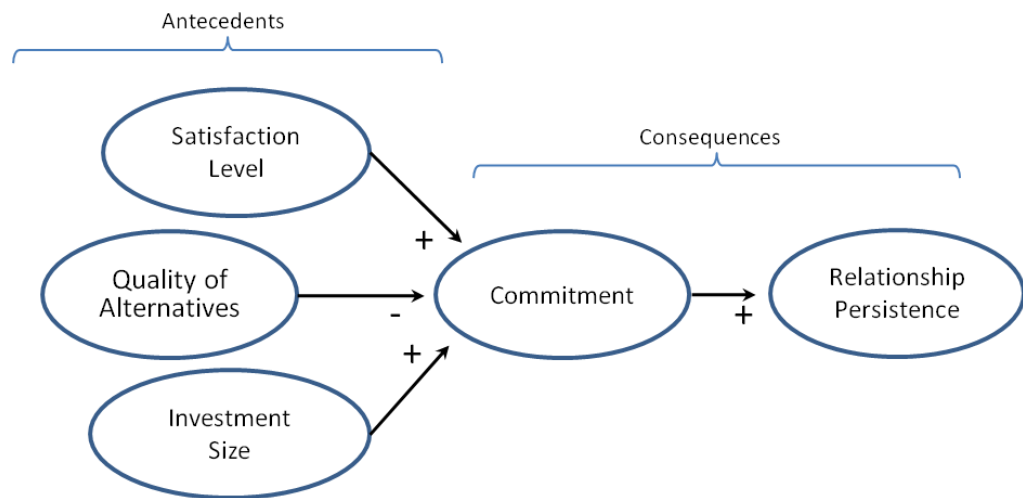
Another important contribution to the understanding of the mechanism underlying human relationships and social exchange is the work of Rusbult. She and her colleagues propose the *Investment Model* (Figure 2-1) as the basis for examining and understanding the commitment development process of a relationship (Rusbult 1980, 1983; Rusbult *et al.* 1998). The model is an extension of Thibaut and Kelley's (1959) satisfaction and dependency (or power<sup>2</sup>) but with the inclusion of the concept of investment and commitment. According to Rusbult (1980, 1983), commitment is the result of the interplay between three key factors: satisfaction, alternatives and investment. *Satisfaction*, theorised as, and found to be, positively associated with commitment, refers to all the positive 'affect' emotion or attraction that draws a person into a relationship. Another antecedent of commitment is the *quality of alternatives*, defined as "*the perceived desirability of the best available alternative to a relationship*" (Rusbult *et al.* 1998, p. 359). Quality of alternatives, negatively associated with commitment, is an important factor

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<sup>2</sup> In relational terms, power is the dependence of one social actor on another (Emerson, 1962).

that pushes a person *away* from a relationship. At the same time, *investment size* (the third antecedent of commitment) refers to factors that *bind* a person to a relationship. It is defined as “*the magnitude and importance of the resources that are attached to a relationship*” (Rusbult *et al.* 1998, p. 359). The investment model theorises that huge investments and unacceptable or poor alternatives lead to relationship entrapment, where an individual may be caged into an unsatisfying relationship (Rusbult 1980).

Rusbult’s investment model has been tested extensively in previous research. There is considerable empirical evidence to suggest that the three antecedents of commitment: *satisfaction*, *quality of alternatives* and *investment*, must be presented in the model as each component makes an important contribution to the process of commitment development and relationship persistence.



**Figure 2-1: Investment Model from Social Exchange Theory (Rusbult *et al.* 1998)**

Many past studies assume (either directly or indirectly) that individuals stay in a relationship because they are satisfied with it. Although the experience of satisfaction is an extremely important factor, *“the investment model suggests that feeling good – liking, attraction, satisfaction, and the like - is not sufficient to predict persistence and willingness to go the extra mile on behalf of the relationship”* (Rusbult, Olsen, Davis and Hannon 2001, p. 95). Indeed, the interplay of the feeling of satisfaction (wanting to stay), having high investment (needing to stay) and having poorer alternatives (having no choice but to stay) represents an important and additional element in predicting strong dependence or commitment.

### 2.2.6 Summary

These streams of research from social psychology have a number of similarities to marketing research. For instance, Rusbult's concept of satisfaction level and Levinger's concept of attraction represent the forces that pull a person willingly into a relationship. In the marketing research arena, this concept is similar to those of satisfaction or affect loyalty (see Oliver 1997). On the other hand, Rusbult's 'investment size' concept, Kollock's 'social uncertainty' and Levinger's concept of 'barrier' represent the forces that bind an individual unwillingly to a relationship, which are analogous to the concept of 'switching costs' in the marketing literature. These factors become important when an individual contemplates leaving a relationship out of dissatisfaction or when a better alternative arises. In addition, 'commitment' in social psychology is largely defined as the tendency of a person to remain in and feel attached to a relationship (Gremler 1995). This notion has been described in a similar way in the marketing context through the concept of *customer loyalty* (Gremler 1995). Rusbult argued that satisfaction and commitment are *not* linearly or perfectly correlated. This is because it is possible for a person to feel highly satisfied in a relationship but to have little commitment to it. In contrast, according to Rusbult (1991, p. 152), "*people can feel strongly committed to a relationship without feeling happy with it*". This argument is parallel to the debate about the satisfaction-

loyalty link in the marketing literature, particularly with respect to discussion about whether satisfaction is a mandatory *and* adequate requirement for customer loyalty formation.

The primary focus of the current research is on the influence of switching barriers on customer retention in the e-retailing industry. As mentioned previously, commitment to personal relationship is similar in many important ways to the concept of customer loyalty in marketing research. The next few sections discuss important literature on customer loyalty from both the marketing and consumer behaviour research arenas.

### **2.3 CUSTOMER LOYALTY**

Customer loyalty is described by Oliver (1999) as the overall attachment and deep commitment to product, brand, organisation or retailer (Torres and Martins 2009). As noted in the previous section, loyalty is mainly referred to by social psychologists as commitment.

It has been widely emphasised by marketing practitioners and academics alike that the most important goal of marketers is to generate customers who are committed repeat-purchasers. Customer loyalty is crucial for firm success because loyal customers enhance the firm's profitability (Reichheld 1996) and market share (Chaudhuri and Holbrook 2001), as well as



increase shareholder value (Sindell 2000). In addition, they are much cheaper to serve (Ganesh, Arnold and Reynolds 2000), are more compassionate and forgiving of occasional experiences of dissatisfaction or failure (Yi and La 2004) and are resistant to competitive overtures (Narayandas 2005; Oliver 1999). Retaining existing customers is also less costly than attracting and acquiring new ones (Martin 2008; Reibstein 2002; Vatanasombut, Stylianou and Igbaria 2004). In view of the significance of customer loyalty, recent scholars have called for more research into predictors and constituents of customer loyalty (e.g., Parasuraman and Grewal 2000).

Customer loyalty cannot be emphasised more in the internet market, where it is generally held that customers are able to discontinue a relationship with a simple 'click of the mouse' (Anderson and Srinivasan 2003; Reichheld and Schefter 2000). Most companies, especially those that are exclusively online (e.g., Amazon, Play.com, etc.), have been attempting to enhance customer loyalty, investing millions of dollars in various relationship marketing strategies and retention programmes (Yi and La 2004).

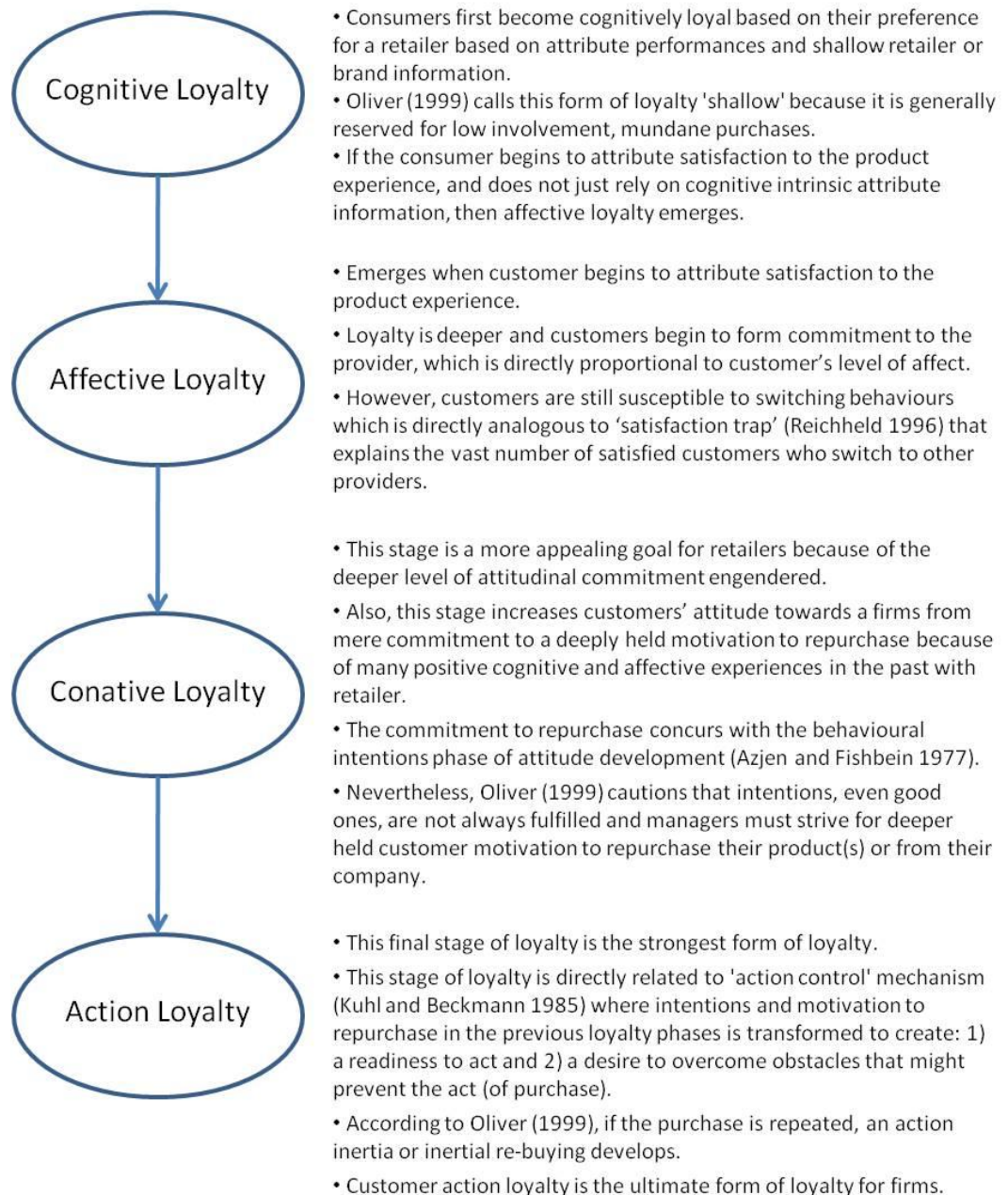
According to Reichheld and Shefter (2000), there are various reasons for the crucial importance in the online environment of having a loyal customer base. First, online customers are more costly to acquire compared to offline customers. As such, losing them represents a cost to the e-retailer.

For instance, it has been indicated that for pure online clothes retailers, the cost of acquiring new customers is 20 to 40 per cent higher than for offline bricks-and-mortar or multichannel retailers (Chen 2003). Second, loyal or committed online customers buy more than non-loyal customers or switchers. They provide a rich source of profit, especially in the long run. Literature provides evidence of this where the core loyal customers of a successful website are the source of more than half of the sales of that website (Chen 2003). Reichheld and Schefter (2000) also suggest that simply by increasing the customer retention rate by 5 per cent, company profits will increase by 25 per cent to 95 per cent. Therefore, pure players without core loyal customers need to allocate higher resources to acquire customers and may ultimately find it difficult to remain afloat. Despite this recognition of the importance of customer loyalty, 70 per cent of e-retailers have limited knowledge of the strategies for cultivating relationships with customers (Wilcox and Gurau 2003). This is because the developing of loyalty is not as straightforward as some studies have suggested.

The list of constructs associated with online loyalty formation, online purchase intention and/or customer retention is impressively long. Among these constructs are customer experiences with the online retailer and its website (Shankar *et al.* 2003), trust (Harris and Goode 2004), satisfaction (Anderson and Srinivasan 2003; Balabanis *et al.* 2006; Bansal *et al.* 2004),

value (Chen 2003; Yang and Peterson 2004), customer participation in value creation (Holland and Baker 2001), attractiveness of competitors (Li *et al.* 2007) and switching costs (Chen and Hitt 2002). However, none of these studies are able to illuminate a clearer path towards true online loyalty. One likely explanation for this problem is that loyalty has always been considered as static rather than evolving. However, there is evidence in the marketing literature where customer loyalty is evolving and dynamic.

The most comprehensive studies highlighting the dynamic nature of customer loyalty are provided by Oliver (1997, 1999) and Dick and Basu (1994). According to Oliver (1999), customer loyalty grows through a sequence of phases or stages (Figure 2-2). Dick and Basu (1994) also suggest different degrees of loyalty, each emerging from various types of conditions or situations (Figure 2-3). There are however small divergence of viewpoints between Oliver (1997, 1999) and Dick and Basu (1994). However, there are many very interesting similarities.



**Figure 2-2: Oliver's (1999) Loyalty Phases**

As shown in Figure 2-2 above as well as Figure 2-3 below, Oliver (1999) conceptualises loyalty as the development of four phases - *cognitive loyalty*, *affective loyalty*, *conative loyalty* and *action loyalty* – and postulates that loyalty is not achieved until a customer shows high consistency throughout the four distinct phases. Dick and Basu (1994) also conceptualise four separate conditions for increasing degrees of loyalty: *no loyalty*, *spurious loyalty*, *latent loyalty* and *true loyalty*. Their loyalty typology is based on the interaction between customers' relative attitude towards a brand or a retailer and their repeat purchase behaviour towards that brand or retailer.

As mentioned earlier, despite some differences of viewpoints about loyalty, comparison of the two conceptualisations reveals a large number of close similarities as discussed in the following subsections.

		<u>Repeat Purchase</u>	
		High	Low
<u>Relative Attitude</u>	High	<i>True Loyalty</i>	<i>Latent Loyalty</i>
	Low	<i>Spurious Loyalty</i>	<i>No Loyalty</i>

**Figure 2-3: Dick and Basu (1994, p. 101) Loyalty Classification**

### **2.3.1.1 Cognitive Loyalty vs. Spurious Loyalty**

Oliver's (1999) 'cognitive' loyalty (loyalty based solely on cognition) refers to the belief that a particular retailer is preferable to others based exclusively on the *information* that customers have about a retailer's *functional characteristics*, such as costs and benefits (Harris and Goode 2004; Oliver 1997). This loyalty phase is very similar to Dick and Basu's (1994) 'spurious' loyalty condition. Oliver (1999) describes cognitive loyalty as 'phantom' or 'shallow' loyalty. Dick and Basu (1994) describe spurious loyalty as *high* repeat purchase with relatively low attitude influencing the behaviour.

In both of these phases or conditions, there is still lack of positive emotion or 'liking' towards the product or service consumption by customers. Customers are mostly exercising *rational* switching behaviour (when they switch), *consciously* weighing the costs and benefits of both the current firm's and competitors' offerings. They are also extremely vulnerable to competitors' inducements because their loyalty is operating only at a cognitive level. This is more so in the online market context, where agent-based services (e.g. shop-bots) and highly sophisticated search engines (e.g. Google) exist, which aggregate information on products and competitors. This allows customers easily to compare the cost and benefit across different e-

retailers. It also makes the switching of decisions extremely easy for cognitive, phantom or spurious loyal customers (Pedersen and Nysveen 2001).

However, there is one very fundamental difference between Oliver's (1999, 1997) and Dick and Basu's (1994) conceptualisation of loyalty. According to Dick and Basu (1994, p. 101), spurious loyalty "*is conceptually similar to the notion of inertia*". In another words, they equate customer inertial or habit buying to the customer being spuriously loyal to a retailer or brand. In contrast, Oliver equates inertial buying to 'action loyalty' (the final phase of loyalty – see again Figure 2-2, p. 31). In the Dick and Basu's loyalty conceptualisation, 'action loyalty' is more closely akin to 'true loyalty' than to 'spurious loyalty'.

This stark difference in the understanding and interpretation of inertial customers led to much confusion in subsequent marketing literature. Further review of action loyalty is provided in Subsection 2.3.1.3 below. Also more discussion of this difference is provided in Subsection 2.8.3 (p. 90).

### **2.3.1.2 Affective Loyalty vs. Latent Loyalty**

There are considerable points of similarity between Oliver's 'affective' loyalty, and Dick and Basu's 'latent' loyalty. According to Oliver, affective loyalty involves a liking for, or a favourable attitude towards a brand (see again

Figure 2-2). This is based on *accumulation of experienced satisfaction*, which leads to positive attitudinal shift (Oliver 1997). Although affective loyalty is stronger than cognitive loyalty, customers are still highly vulnerable to dissatisfaction and are responsive to competitors' switching inducements. Similarly, Dick and Basu (1994) describe the latent loyalty condition as reflecting high attitudinal preference but relatively low repeat patronage or purchase (see again Figure 2-3). This is because high non-attitudinal influence (such as subjective norms or situational influence) can still gain control over favourable attitude towards the product in the process of purchase decision making. In both articles, situations are illustrated in which customer can develop a high relative attitude ('like') to a retailer whilst still remaining receptive to competitor overtures.

#### **2.3.1.3 Conative-Action Loyalty vs. True Loyalty**

Dick and Basu's (1994) 'true loyalty' condition is also somewhat similar to Oliver's (1999, 1997) 'conative-action' loyalty phases. Conative loyalty refers to customer's *behavioural intention* to continue to purchase a brand in the future; action loyalty refers to transforming that intention into action, and the readiness of the customer to overcome obstacles to purchasing a brand. Similarly, Dick and Basu describe the 'true loyalty' condition and as the most preferred among the four types of loyalty for a brand. This is because the



customer has moved to the *highest level of loyalty*, arriving at an optimal condition of balance between level of attitude and repeat patronage. The likelihood of defecting due to competitors' inducements is considerably lower when compared to cognitive (spurious) and affective (latent) loyalty. In this condition, the customer has moved or achieved a state of true loyalty through positive evaluation of consumption and experience.

Having reviewed the similarities and differences between Oliver's and Dick and Basu's loyalty concepts, it is also important to note that, although both are widely accepted in consumer research, they are somewhat challenging to operationalise and examine empirically (see e.g., Baloglu 2002; Bourdeau 2005; Garland and Gendall 2004; Harris and Goode 2004).

As mentioned earlier, marketing literature is overloaded with research investigating constructs that may influence the formation and development of customer loyalty. This study is most interested in the role of switching barriers and satisfaction that encompass some of these variables in predicting online customer loyalty and habit. The review of literature on the habit construct and the position adopted in this research are presented in Section 2.8 (p. 79). The following section reviews past literature on customer satisfaction that is relevant to this study.

## 2.4 OVERALL SATISFACTION

Customer satisfaction is one of the most critical constructs and a core concept in marketing thought, practice and customer decision making (Garbarino and Johnson 1999; Holloway 2003; Mittal and Kamakura 2001). As mentioned earlier, past literature in marketing argues that satisfaction is not a prerequisite to loyalty and/or customer retention (1995). As such, increased satisfaction may not necessarily lead to an increase in loyalty to firms. Various studies have highlighted the less than perfect correlation and non-linearity between satisfaction, loyalty and/or customer retention (Jones and Sasser 1995; Mittal and Kamakura 2001). Evidence from the utility theory and marketing literature shows that dissatisfied customers often remain with a retailer (Bolton and Drew 1991; Burnham *et al.* 2003) and that satisfied customers still buy elsewhere for a variety of reasons. For instance, Keaveney (1995) found that many customers switch services despite being immensely satisfied with their former service providers. Evidence also suggests that satisfied customers do not necessarily buy more (Seiders, Voss, Grewal and Godfrey 2005). As such one main drawback in concentrating purely on satisfaction management is its failure to consider the effects of competition, which is extremely important in the internet market.

Some explanations as to why satisfied customers may still defect have been offered by Roberts (1989). These explanations include: (a) customers perceive better benefits are available elsewhere; and/or (b) customers doubt the ability of their current service provider to deliver a satisfactory service in the future. Robert also argues that dissatisfied customers may still maintain their relationship with a firm because: (a) the *cost of switching* outweighs the benefits; (b) they are uncertain of the outcomes gained from *alternative firms*; and/or (c) there is a perception that the alternative firm may not be any better than the existing one.

Another study undertaken in the context of offline financial services (Panther and Farquhar 2004) drew similar conclusions with respect to why dissatisfied customers stay, as well as put forward several additional reasons, namely: (a) the customer is time-pressed, so does not have the time to evaluate and/or switch; (b) the customer is 'locked-in' to the firm because of the breadth of product used and/or other commitments with the firm; and/or (c) the customer has traditionally been with the firm and intends to stay. Other researchers argued that dissatisfied customers stay because they are passive, indifferent and/or simply lazy (Colgate and Hedge 2001; Zeelenberg and Pieters 2004).

Satisfaction is theoretically referred to as affective-oriented assessment of the services provided and as such, is the emotive aspect of loyalty (Bourdeau 2005; Cronin, Brady and Hult 2000; Oliver 1999). According to Howard and Sheth (1969), when deciding whether to switch to a competing retailer, customers are often guided by their feelings of satisfaction/dissatisfaction with the retailer.

There remains both considerable debate and confusion about customer satisfaction although the construct is well documented in the literature. One primary debate is whether satisfaction refers to customer evaluation of specific encounters with retailers *or* evaluation of the overall satisfaction of all encounters and experiences with retailers (Anderson, Fornell and Lehmann 1994; Bitner 1990; Bitner and Hubbert 1994; Cronin and Taylor 1992; Parasuraman, Zeithaml and Berry 1994; Yi 1990).

In this research, focus is placed on overall satisfaction as it is strongly influenced by customers' behavioural patterns (Anderson *et al.* 1994; Burnham 1998). Overall satisfaction refers to the cumulative judgement overtime of customers with regards to retailer performance. This overall judgement strongly depends on multiple encounters and service experiences with the retailer. A customer's overall judgement of satisfaction with their retailer is generally held to lead to positive attitude towards the retailer and

towards repurchase from that retailer (Anderson and Srinivasan 2003; Balabanis *et al.* 2006; Burnham *et al.* 2003; Fornell 1992).

Marketers often fall into the 'satisfaction trap' (Reichheld 1996), in that they place excessive emphasis on satisfaction ratings at the expense of other drivers of customer loyalty or retention (Burnham *et al.* 2003; Mittal and Kamakura 2001). Aside from satisfaction, there are many other factors that drive customer retention, such as switching costs and competitors' offerings (Burnham *et al.* 2003; Jones *et al.* 2002), all of which should be considered when investigating the effect of customer satisfaction and loyalty.

The next section and subsections proceed with discussion of customers' perceived switching barriers and their components as potential drivers of customer retention.

## 2.5 WHAT ARE SWITCHING BARRIERS?

Hirschman (1970) argues that the tendency for loyalty increases when options to exit a relationship are limited and when the perception of switching barriers is high. Hirschman contends that overall satisfaction with the relationship, switching costs associated with quitting the relationship and the attractiveness of an alternative relationship are all very powerful predictors of exit, voice (i.e. customer complaint, word of mouth, etc.) and loyalty responses in a relationship (Ping 1993).

In searching for the meaning of the term switching barriers, a useful definition is provided by Jones, Mothersbaugh and Beatty (2000), who conceptualised it as:

*“.. any factor, which makes it more difficult or costly for consumers to change providers” (p. 261)*

Table 2-1 (p. 44) provides a synthesis of selected studies that have attempted to categorise switching barriers empirically. As can be seen, there are almost as many perspectives of switching barriers as there are researchers. There is also confusion between the term ‘switching costs’ and ‘switching barriers’ (Balabanis *et al.* 2006; Colgate, Tong, Lee and Farley 2007), with many authors using both terms interchangeably (e.g. Bansal and Taylor 1999; Bansal *et al.* 2005; Mathwick 2002; Ranaweera and Prabhu

2003). Goode and Harris (2007) have noted that there are “*subtle differences between switching barriers and costs*” (p. 517) although they fail to describe any clear differences.

Other authors have also used switching barriers or costs to explain many different dimensions but with little consistency (Colgate *et al.* 2007). For instance, Sharma and Patterson (2000) include the social / interpersonal bond as a sub-construct of switching costs while other scholars (e.g. Gremler 1995; Jones *et al.* 2000; Wathne, Biong and Heide 2001) are careful to discriminate between social / interpersonal bonds and switching costs. Instead, they treat both switching costs and social / interpersonal bonds as components of switching barriers. Likewise, many other authors regard switching barriers as a ‘catch-all term’ encompassing many different categories or dimensions. The categories and sub-components of switching barriers may differ depending on the field of study or issues being researched, as can be observed in Table 2-1, and will be discussed later in this section.

### **2.5.1 Some Categories of Switching Barriers**

Jones *et al.* (2000) empirically assessed three categories of switching barriers, in the context of hair salon and offline bank customers: strong interpersonal relationships (i.e. the strength of bonds that a customer may develop with a firm’s employee(s)); high switching costs (i.e. the time, money

and effort perceived by the customer in dissolving the relationship with the current firm and defecting to an alternative); and attractiveness of alternatives, which refers to the extent to which viable and/or quality competitors are available in the market.

Holloway (2003), building on the work of Jones *et al.* (2000) but with application to the online retail context, examined three categories of switching barriers: switching costs, alternative attractiveness and online relationship quality. Although she based her study on Jones *et al.*'s (2000) categorisation of switching barriers, she concluded that switching costs are *unimportant* and *negligible* in the online environment. Holloway noted that one important reason that she failed to find any importance of switching costs in her online retail research is that her "*findings may be hindered by the limited manner in which perceived switching costs are measured..... [as] recent research illustrates that perceived switching costs are far more complex*" (Holloway 2003, pp. 115-116).



**Table 2-1: Selected Literature on Switching Barriers**

Research	Predictors / (Moderators)	Outcome	Measurement of switching costs	Method / Context	Type of Service Relationship	Findings
<b>ONLINE STUDIES</b>						
Tsai and Huang (2007)	Community Building Overall Satisfaction Switching Barriers Customisation	Repurchase Intentions	SMI	SEM / PLS N= 463 customers of an e-retailer in Taiwan	Non-C	Both switching barriers and overall satisfaction had an equivalent positive direct effect on customer intention to repurchase.  Community building had a dominant effect over other factors.
Tsai <i>et al.</i> (2006)	Switching Barriers: -Expected Value Sharing -Perceived Switching Costs -Community Building  Perceived Service Quality Perceived Trust Satisfaction (Relational Orientation)	Repurchase Intentions	SMI	SEM N= 526 Customers of an e-retailer in Taiwan	Non-C	Switching barriers are a stronger predictor of repurchase intentions than satisfaction. Community building is the stronger antecedent.
Balabanis <i>et al.</i> (2006)	Satisfaction Purchase Involvement Internet Experience (Switching Barriers)	e-Loyalty	MDMI	HRA N= 192 Internet shoppers of websites	Non-C	Main effect and asymmetric interaction effect – the impact of switching barriers on e-store loyalty is greater when e- store satisfaction is below the average level.
Yang and Peterson (2004)	Perceived Value Customer Satisfaction (Switching Costs)	Loyalty	SMI	SEM N= 235 Online banks customers	C	Main effect (+) of switching costs is not significant.  Interaction effect (-) of switching costs and satisfaction is significant when satisfaction is above the average level.  Interaction effect of switching costs and value is also not significant.

Holloway (2003)	Recovery Satisfaction Recovery Trust (Switching Barriers): -Perceived Switching Costs -Attractiveness of Available Alternatives -Ongoing Relationship Quality	Intention to Remain	SMI	MRA N = 264 e-shoppers of pure online companies and N= 252 e-shoppers of bricks-and-click companies in the US	Non-C	Both main and interaction effects of switching costs were not significant in either groups.  Significant main (+) and interaction (-) effects of attractiveness of alternatives between satisfaction and intention for pure online companies only.
Chen and Hitt (2002)	Website Quality Product Breadth Cost Personalisation Website Ease Of Use Minimum Deposit	Switching Behaviour	Utilised web-traffic data	LRA  N= 2,257 Clients of online brokerage firms	C	Customer switching behaviour is correlated negatively with high volume of website usage, and quality and breadth of website offerings.
<b>OFFLINE STUDIES</b>						
Vazquez-Casielles, Suarez-Alvarez and Del Rio-Lanza (2009)	Cumulative satisfaction (Negative switching barriers) (Positive switching barriers)	Repurchase intention Positive Recommendation Price tolerance	MDMI	HRA N=554 Customers of Spain telecommunica-tion providers	C	The main and moderating effects of positive switching barriers between customer satisfaction and repurchase intention are significant.  Only the main effect of negative switching barrier is significant with respect to repurchase intentions.
Shin and Kim (2008)	Price Increase Service Quality Switching Cost Customer Lock-In Satisfaction (Switching Barriers)	Switching Intention	SMI	SEM N= 520 Customers of US mobile phone provider	C	Both main and moderating effects of switching barriers are found, influencing the link between satisfactions and switching intention.
Lam <i>et al.</i> (2004)	Customer Value Switching Costs (Satisfaction)	Loyalty	SMI	SEM N= 268 business customers of a courier service firm	Non-C	There is an interaction effect between customer satisfaction and switching costs on customer loyalty.
Ranaweera and Prabhu (2003)	Satisfaction Trust (Switching Barriers)	Customer Retention	SMI	HRA N= 432 customers of telephone company in the US	C	There is an interaction effect of switching barriers between satisfaction and customer retention.

Burnham <i>et al.</i> (2003)	Higher-order (Switching Costs) composing, -Procedural Switching Costs -Financial Switching Costs -Relation Switching Costs Satisfaction	Intention to Stay	MDMI	SEM N=287 credit card holders and N=288 long-distance phone customers in the US	C	Main effect - switching costs have a greater significant positive impact on customer retention than does satisfaction.
Jones <i>et al.</i> (2002)	Perceived service quality Interpersonal relationships Higher-order switching costs composing six dimensions: -Lost performance -Uncertainty -Pre-switching search and evaluation -Post-switching behavioral and cognitive -Set-up -Sunk	Repurchase Intentions	MDMI	CFA and Chi-square different test N= 246 Bank customers N= 241 Hair salon customers in the US	Mixed	Main effects- Overall sample: all switching cost dimensions are positively and significantly associated with repurchase intentions. Hairstylist sample: uncertainty costs are <i>not</i> significantly associated with repurchase intentions. Bank sample: pre-switching search, evaluation costs and set-up costs are <i>not</i> significantly associated with repurchase intentions.
Jones <i>et al.</i> (2000)	Core-Service Satisfaction (Switching Barriers): -Interpersonal Relations -Switching Costs -Attractiveness of Alternatives	Repurchase Intentions	SMI	MRA N= 228 Bank customers N= 206 Hair salon customers in the US	Mixed	Main effects of switching costs are not significant. Asymmetrical interaction effect - switching barriers only have a significant positive impact on repurchase intentions when satisfaction is low.
Gremler (1995)	Satisfaction Interpersonal Bond Higher-order switching cost composing three sub-constructs: Effort Continuity cost Contractual	Service Loyalty	MDMI	Path Analysis N= 1603 Bank customers N= 407 Dental patients in the US	Mixed	Main effects of higher-order switching costs construct are not a significant predictor of loyalty for dental patients but are significantly related to loyalty for bank customers.

**NOTES-** SEM: Structural Equation Modelling; CFA: Confirmatory Factor Analysis; HRA: Hierarchic Regression Analysis; MRA: Moderated Regression Analysis; LRA: Logistic Regression Analysis; SMI: Single multi-items; MDMI: Multi-dimensional multi-items; C: Contractual; Non-C: Non-Contractual.

Balabanis *et al.* (2006) explored the impact of switching barriers on online customers' satisfaction and loyalty based on a student sample of UK online shoppers. The study found seven categories of online switching barriers: convenience, economics, speed, parity, emotion, familiarity and awareness. The switching barrier categories of parity and awareness are almost analogous to the issues of perceived attractiveness of alternatives. The other remaining categories can be applied to the broader discussion of switching costs in other studies. In contrast to Holloway (2003), the study found switching barriers to have profound impacts on internet shoppers, especially on customer satisfaction and loyalty. Specifically, switching barriers moderate the link between satisfaction and loyalty.

Studies by Ping (1993, 1997, 1999) use the label 'structural commitment' although he refers to similar issues termed as switching barriers (Julander and Söderlund 2003) by other researchers. The classifications he uses include alternatives attractiveness, investment in a relationship and switching costs. In contrast, in their research into the switching dilemma faced by customers of offline financial services, Colgate and Lang (2001) divide switching barriers into four components: relational investments, switching costs, service recovery and attractiveness of alternatives.

Although switching barriers is conceptually a multidimensional construct encompassing several categories and dimensions, a number of other authors have adopted a different approach. In studying customers of fixed line telephone providers in the US, Ranaweera and Prabhu (2003) utilise only one global measure of switching barriers although they assert that that the measure encompasses 'self-efficacy' as well as 'facilitating condition' issues. They also describe switching barriers differently, using Bansal and Taylor's (1999) definition of the term, namely, "*the consumers' assessment of the resources and opportunities needed to perform the switching act*" (p. 379). Similarly, a later study by Shin and Kim (2008) on consumer switching intention in mobile number portability has also conceptualised switching barriers as a global construct.

The concept of switching barriers is well established and has started to attract interest in recent years. However, the review of the literature revealed several conceptualisation and operationalisation issues with respect to switching barriers, prompting the focus in this study on further exploration of the very nature of the concept and its role in promoting online customer retention.

In the next section, the position adopted in this research with respect to categorising switching barriers is explained.

### 2.5.2 The Components of Switching Barriers in this Study

In this study, the exploration of the categories of switching barriers in the online retailing context is based on the work of Jones *et al.* (2000, 2002), of who divided customer perceived switching barriers into three major components: perceived switching cost, attractiveness of available alternatives and interpersonal relationship. Since their study focuses mainly on *offline* customer services, these three barriers are extremely prevalent. This is particularly the case with the interpersonal relationship concept.

In this study, although a similar conceptualisation is followed, some modifications and adaptations are necessary due to the study's exclusive examination of customers of pure online retailers. One of the most prominent adaptations is in terms of measurements, discussed further in the methodology chapter. Further adaptation is made with respect to the switching barrier components. Since the focus of this research is on the customers of pure online retailers, the interpersonal relationship construct does not apply. Compared to a physical market environment, there is a considerable lack of face-to-face interaction (Szymanski and Henard 2001) between customers and retailer employees in the online market, which precipitates the importance of the interpersonal relationship component. Consequently, in this research the only two components of perceptual

barriers to switching taken into consideration are perceived *switching costs* and perceived *alternatives attractiveness* (Figure 2-4).



**Figure 2-4: Components of Switching Barriers Focused on in this Research**

The first switching barriers component under study is *perceived switching costs*. According to Jones *et al.* (2002, p. 441), “switching costs can be thought [of] as barriers that hold customers in service relationships.” While many are generally in agreement about the meaning of switching costs, there is a lack of consensus about its underlying facets (Caruana 2004). Different categories of switching costs have emerged from the literature. Fornell (1992, p. 11) describes them as “all costs (financial, psychological, learning, etc.) associated with deserting one supplier in favour of another”. These costs can be real or perceived, monetary or non-monetary (Gremler 1995). Discussion of switching costs in this thesis refers to *perceived* switching costs (Morgan and Hunt 1994) as it is not any objective cost that will be measured, but switching costs as perceived by customers (Burnham *et al.* 2003) of pure-play UK online retailers. Detailed review of relevant literature concerning this construct is provided in the next section.

The second component of switching barriers proposed for examination in this thesis is *alternative attractiveness*, defined as “*the customer perceptions regarding the extent to which viable competing alternatives are available in the marketplace*” (Jones *et al.* 2000, p. 262). This construct is based on the customer’s *perception* of other available companies who could alternatively provide the product or service in question. As such, it is not a measure of actual intensity of competition, but rather the attractiveness of possible alternative retailers as perceived by customers (Holloway and Beatty 2003). Detailed review of the literature relevant to this construct is presented in Section 2.7 (p. 72).

The first component of switching barriers, namely, perceived switching cost, will be discussed in the following section. As mentioned previously, while customer satisfaction is important, it is not a sufficient condition for customer loyalty and retention. Therefore, the presence of customer perceived switching costs may partially contribute to the imperfect relationship between customer satisfaction and customer loyalty (Gremler 1995).



## 2.6 BARRIER 1: SWITCHING COSTS

The switching cost concept has been present in the literature for more than three decades; moreover, interest in it has grown. The development of switching costs is driven by various but interrelated areas of research. Past researchers agree that the field of social psychology (as discussed in Section 2.2 above), particularly social exchange theory and the investment model, gave rise to better understanding of the switching cost concept (Burnham *et al.* 2003; Gremler 1995; Ping 1993).

In the business field, the switching cost concept first appeared in the economic literature and was better known as 'transaction costs' (Williamson 1975), referring to the cost that a *firm* endures when switching to a new supplier. Transaction cost theory (Williamson 1973) analyses the presence of industrial investments in transaction-specific assets (e.g. plants and proprietary information) that lead to the vertical integration by firms of their production facilities (Burnham 1998). Williamson argues that the making of strategic choices and decisions by firms is usually impeded by switching costs.

In the context of economics, (e.g., Farrell and Klemperer 2006; Farrell and Shapiro 1988; Klemperer 1987; Klemperer 1995), high switching costs have been associated with monopolistic firm revenues (Klemperer 1987), where high entry barriers in a market influenced by market leaders impact on

customer switching costs (Farrell and Klemperer 2006). The costs also influence the market leader's competitive strategy in terms of product differentiation in real and functional ways (Klemperer 1995).

In addition, scholars have examined switching costs in terms of channel relations in the business-to-business (B2B) context. In particular, switching costs have been investigated in terms of general B2B relationships (e.g., Paulssen and Birk 2007; Porter 1980; Yanamandram and White 2006a) as well as in relation to inter-firm distributional relationships (e.g., Heide and Weiss 1995; Jackson 1985). Switching costs are argued to make the economic exchanges between businesses or partners more valuable and their relationships more meaningful (Dwyer, Schurr and Oh 1987; Frazier 1983; Ping 1993; Thibaut and Kelley 1959). In general, scholars conclude that switching costs hinder a firm's intention to change or switch business relationships (Heide and Weiss 1995).

In terms of the B2B context, while describing the importance of these costs as the basis of industrial relationships, Jackson (1985) has differentiated two types of switching costs: investments and exposure (risk) costs (the degree of perceived risks). Investments include costs incurred in: (a) hiring and training of staff; (b) developing transaction-specific assets and procedures; or (c) building knowledge of customer needs. The existence of

these investments and risks represent switching costs that influence firms to become more responsive to any issues arising in their relationship with other firms. These costs can also influence firms' behavioural responses to their partners. They are found to resort less to negative behaviour, such as opportunism, neglect or exiting because there is "*much to lose*" (Ping 1993, p. 326) and there is the desire for the relationship to work.

The importance of switching costs has also been validated in the strategy literature. For instance, according to Aaker (2009), customer investments in learning about a first-mover product and the familiarity with the first brand in a product category will function as a switching cost for the customer. Moreover, the experience with the first-mover brand will make the trial of a competitor's brand less appealing (Schmalensee 1982). In this sense, to the customer, the feeling of uncertainty and perception of risk surrounding a new and untested brand will act as a switching cost (Beggs and Klemperer 1992; Guiltinan 1989; Schmalensee 1982). While customers may not be entirely satisfied with their current brand, "*it is sometimes the case of 'better the devil that you know than the devil you don't'*" (Caruana 2004, p. 257).

Klemperer (1987), who examined the competition of firms for market share, further differentiates switching costs into 'real' and 'artificial'. Real switching costs are the actual costs involved in changing suppliers (for

example, learning and transaction costs). In contrast, artificial switching costs are derived from a firm's pricing tactics that reward customers when they re-patronise the firm (for example, frequent flier programmes, vouchers and coupon offers) (Holloway 2003).

**Table 2-2: Definitions of Customer Perceived Switching Costs from the Extant Literature**

<b>Contributing authors</b>	<b>Definitions</b>
Porter (1980, p. 10)	<i>"one-time costs facing the buyer of switching from one supplier's product to another"</i>
Gremler (1995, p. 86)	<i>"those costs, including investments of time, money or effort that are perceived by customers as factors that make it difficult to purchase from a different firm"</i>
Jones <i>et al.</i> (2002, p. 441)	<i>"perceived economic and psychic costs associated with changing from one alternative to another"</i>
Ranaweera and Prabhu (2003, p. 379)	<i>"(perceived switching barriers) as the customer's assessment of the resources and opportunities needed to perform the switching act, or alternatively, the constraints that prevent the switching act"</i>
Burnham <i>et al.</i> (2003, p. 110)	<i>"the one-time costs that customers associate with the process of switching from one provider to another"</i>
Patterson and Smith (2003, p. 108)	<i>"the perception of the magnitude of the additional costs required to terminate a relationship and secure an alternative one"</i>
Kim and Toh (2006, p. 2)	<i>"[The] customer's subjective perception of the one-time costs associated with the process of switching from one vendor to another"</i>
Jones <i>et al.</i> (2007, p. 337)	<i>"sacrifices or penalties customers feel they may incur in moving from one provider to the next"</i>
Antón, Camarero and Carrero (2007, p. 141)	<i>"those costs that consumers associate with the process of switching from one supplier to another"</i>
Polo and Sesé (2009, p. 120)	<i>"costs incurred when a customer changes product or service providers"</i>
Chang and Chen (2009, p. 6)	<i>"customer perceptions of the time, money, and effort associated with changing from one website to another"</i>
Kim and Son (2009, p. 52)	<i>"the extent to which a customer feels dependent on a service because of economic, social, or psychological investments that would become useless in other services"</i>
<b>Researcher's compilation</b>	

As discussed above, economics and management literature suggests a host of factors that constitute switching costs. However, most of these studies have typically measured switching costs faced by the customer from the perspective of *managers* (Burnham 1998). Despite this, many of these costs discussed previously are *also* experienced by customers in B2C relationships when they end a relationship with a company or a retailer's brand to initiate a new one (Holloway 2003). In the next section, empirical research measuring *customer* switching costs is reviewed.

### **2.6.1 Customer Perceived Switching Costs**

The most significant attempts to define customer perceived switching costs in the extant literature are presented in Table 2-2. In searching for the best description of switching costs in the B2C context, perhaps the most helpful conceptualisation is provided by Patterson and Smith (2003). They viewed switching costs as *"the perception of the magnitude of the additional costs required to terminate a relationship and secure an alternative one"* (p. 108). Another way of explaining switching costs is as a *"disutility that consumers would rather not incur"* (Burnham *et al.* 2003, p. 115).

According to Fornell (1992), while satisfaction makes it harder for competitors to take away a firm's customers, switching costs make it costly for customers to defect to competitors. Indeed, switching costs can be more

critical an antecedent to customer retention than satisfaction because customers tend to attribute greater weight to them when making decisions (Dick and Basu 1994). As suggested in the theory of self-perception, losses always loom larger than benefits (Zauberman 2003). The presence of switching costs is one of the key factors explaining the imperfect correlation between satisfaction and loyalty (Balabanis *et al.* 2006; Gremler 1995). Switching costs are thus recognised as one of the core predictors of customer retention that can lead to more long-lasting and stable customer loyalty (Bendapudi and Berry 1997; Dick and Basu 1994; Oliver 1997; Polo and Sesé 2009).

Review of empirical studies of switching costs from marketing streams has produced mix findings of the role of switching costs in customer retention or loyalty formation (as shown in Table 2-1, p. 44). Torres and Martins (2009, p. 168) also concurred with this view, noting the presence of *“conflicting results across empirical studies concerning the main effects as well as asymmetrical, moderating and interaction effects of switching costs between satisfaction and the loyalty relationship.”*

Agreement among scholars on the direct influence (main effects) of switching costs in predicting switching behaviour in both B2C online and offline retailing is virtually unanimous (Balabanis *et al.* 2006; Bendapudi and

Berry 1997; Burnham *et al.* 2003; Fornell 1992; Jones *et al.* 2000; Ranaweera and Prabhu 2003; Yang and Peterson 2004). There is empirical evidence that switching costs influence customer loyalty directly, both in the offline (Bell *et al.* 2005; Burnham *et al.* 2003; Patterson and Smith 2003; Ranaweera and Prabhu 2003) and online (Balabanis *et al.* 2006; Tsai and Huang 2007) service or retail environments. For example, Burnham *et al.*'s (2003) study on clients of credit card firms and long distance phone providers found switching costs to have a direct influence on customers' repurchase intention. They also concluded that switching costs function as a better predictor of customer retention than satisfaction, explaining 16 per cent and 30 per cent of variance (on repurchase intention) respectively. However, Burnham *et al.* (2003) found only the main effect of switching costs on customer retention, not the moderating effect. Similarly, Tsai *et al.* (2006), surveying customers of one Taiwanese e-retailer, also found switching costs to have greater influence on repurchase intention. They concluded that switching costs explain 59 per cent of the variance of repurchase intention, far exceeding satisfaction, which explains just 36 per cent.

However, although most studies have found the direct effect between switching costs and loyalty formation, interestingly, there other studies that have found the absence or lack of main effects between switching costs and customer retention or loyalty (e.g., Jones *et al.* 2000; Lee, Kim and Moon

2000; Methlie and Nysveen 1999; Yang and Peterson 2004). Although the main or direct effect of switching costs on repurchase intentions was not significant for Jones *et al.* (2000), their study on customers of banks and hair salons found that switching costs interact negatively with satisfaction to influence customer behavioural intentions. In other words, Jones *et al.* (2000) finds that while switching cost effects are evident; these effects only emerge as consumers become less satisfied with the core service offered, i.e., switching costs increase customer retention when satisfaction is low. This somewhat concurs with social exchange theory, which posits that in personal relationships, individuals start to perceive and/or experience switching costs when satisfaction with their current relationship begins to decrease. Jones *et al.* (2000) also noted that “*the absence of main effects only serves to reinforce [their] core thesis that a main effect approach is not sufficient to capture the complex processes underlying customer retention*” (p. 268).

On the other hand, in the online settings, the interaction effects of switching costs have been found only under *certain conditions*. Balabanis *et al.* (2006) revealed that switching costs moderate the satisfaction and loyalty link only when satisfaction is perceived by online shoppers as *below* average. However, this contradicts the findings of Yang and Peterson (2004), namely, that switching costs only moderate the relationship between value and loyalty when value and/or satisfaction are/is perceived as *higher* than average



by online shoppers. Balabanis *et al.*'s (2006) result somewhat concurs with Jones and colleagues' (2000) offline study, which found that only when the level of satisfaction falls below a certain level does the customer feel the effect of switching costs on loyalty.

Interestingly, other research has also found the *interaction* effects of switching costs in their research models; however, these effects are *positive* rather than negative. For example, Lam *et al.* (2004), in examining the linkages between satisfaction, perceived value, switching costs and client loyalty of a courier service provider (an offline service), found a positive interaction effect of switching costs and satisfaction on predicting loyalty.

Other studies have also suggested *both* direct and interaction effects of the switching costs construct in their models. For instance, Shin and Kim (2008), when predicting the switching behaviour of clients in the mobile phone service, concluded that switching costs positively affect intention to switch directly as well as indirectly, through their interactions with clients' satisfaction. These results are comparable to another study (in a similar industry), where switching costs were found to have a positive, direct influence on retention through their interaction with customer satisfaction (Ranaweera and Prabhu 2003).

These mixed results and the lack of a main effect of switching costs in terms of predicting customer retention or loyalty warrant further investigation. Such divergence in findings may actually stem from certain measurement issues relating to switching costs, the different way that switching costs are measured as well as the research contexts and research settings.

#### **2.6.1.1 Unidimensional versus Multidimensional Measure**

Burnham *et al.* (2003) and Jones *et al.* (2002) mention that the customer switching cost literature is dominated by research conceptualising the construct as unidimensional, hence utilising a global measure to estimate switching costs. Again, referring to Table 2-1 (p. 44), most online studies using switching costs as an important construct typically either measure switching costs as a global construct or measure only selected switching costs. At a higher-level of abstraction in the customer's cognitive structure, perceived switching costs are suggested by some scholars to be complex and difficult to measure (e.g., Fornell 1992). Due to this complexity and subjectivity, researchers have questioned the credibility of a single global measure of perceived switching costs. According to Bagozzi and Edwards (1998), multidimensional measurement is crucial to test complex constructs because

a single global measure is not sufficient to capture the richness of perceived switching costs (Burnham 1998). As suggested by Torres and Martins (2009),

*“...a more balanced set of [switching costs] measures is needed, allowing to reflect the multidimensionality of the construct which potentially increases its explanatory power.” (p. 169)*

The following discussion synthesises the various types of customer perceived switching costs found in the literature.

## **2.6.2 Typology of Switching Costs**

### **2.6.2.1 Descriptive Literature**

As noted, literature has suggested various types of switching costs. Table 2-3 (below) provides a summary of the descriptions of these costs found in the literature. The first descriptive study that theoretically differentiated customer switching costs into several dimensions was that by Klemperer (1987). He classified switching costs as: (a) transaction costs; (b) learning costs; and (c) artificial (or contractual costs). Another descriptive study was carried out by Guiltinan (1989). Based on meta-analysis of previous literature, he further theoretically classified customer perceived switching costs into: contractual costs, set-up costs, psychological commitment costs and continuity costs. In addition, Klemperer (1995) descriptively divided perceived

switching costs into six different categories based on the kind of cost or loss involved: technology compatibility costs, transaction costs, learning costs, risk costs, contractual costs and psychological costs.

Although Fornell (1992) utilises the label switching barriers, it is clear that he is referring to issues related to switching costs. His list includes *“search costs, transaction costs, learning costs, loyal customer discounts, customer habit, emotional cost, cognitive effort and financial, social and psychological risk”* (p. 10). He argues that aside from customer satisfaction, other means of retaining customers are through the management of these costs, which reduce the likelihood of customers leaving the service provider, although certain factors like below-average service performance may encourage such. Fornell (1992) also notes that *“a direct measure of switching barriers is difficult to obtain (because) all costs associated with deserting one supplier in favour of another constitute switching barriers... Any attempt to measure all of them [switching barriers] would be an overwhelming task”* (p. 11).

**Table 2-3: Descriptive Consumer Switching Cost Research**

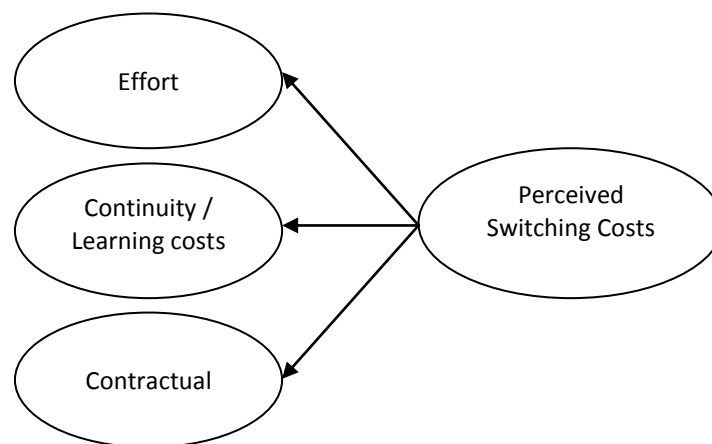
Author	Switching Cost Types	Description / Examples	
Klemperer (1987)	Transaction costs, learning costs, artificial (or contractual costs)	Different switching costs will have a different impact on customers' choice. Switching costs can be created through customers' investment in firms or through investments set up by firms	
Guiltinan (1989)	Contractual costs forgone	The switching opportunity forgone	Loss of loyalty benefits like cumulative volume discount and continuing premium
	Set-up costs	Cost incurred in initiating new relationship	Initiating fees, purchase of auxiliary equipment, cost of learning new procedures and search costs
	Continuity costs	Psychological costs of switching	Result from: Norms for consistency
	Psychological commitment costs	The opportunity costs related to reduced performance	Due to: Specialised knowledge of customers History of satisfactory performance
Fornell (1992)	Cognitive effort, Emotional costs, Learning costs, Loyal customer discounts, Risks (financial, social and psychological), Search costs and Transaction costs	One of the first scholars to appraise customer switching costs together with satisfaction in cultivating customer loyalty. He contends that switching costs is amongst the many crucial factors influencing customer satisfaction and customer loyalty. While he did not specifically measure each type of switching cost, he descriptively provided a list of potential types.	
Klemperer (1995)	Technology-compatible costs, Transaction costs, Learning costs, Risk costs, Contractual costs, Psychological costs	This article summarises various studies on customer perceived switching costs during that time.	

Sources: Guiltinan (1989, p. 218); Gremler (1985, p. 79); Burnham (1998, p. 106)

### **2.6.2.2 Empirical Literature**

There have been only a small number of empirical attempts to classify and measure customer perceived switching costs as multifaceted constructs.

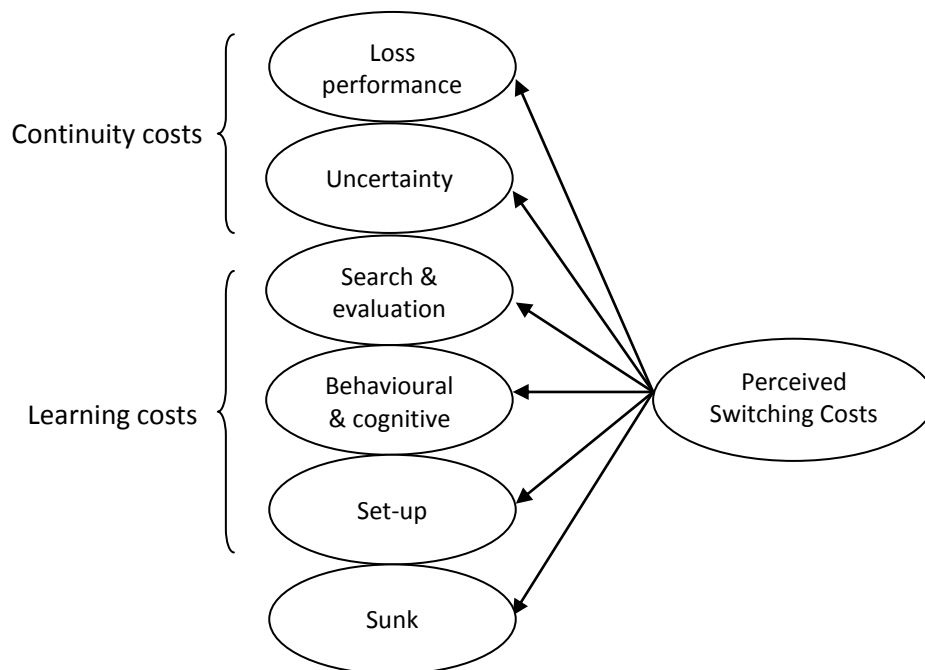
These attempts mainly adopt the traditional offline perspective of perceived switching costs. The first study is the work of Gremler (1995), who examined the influence of this construct on customer loyalty in a highly contractual (retail bank) and high touch (dental surgery) offline service settings. While Gremler proposed switching costs composed of six lower-order constructs (habit/inertia, set-up costs, learning costs, contractual costs and continuity costs), empirical support was found for only three of the dimensions (Figure 2-5). The research confirmed the hypothesised relationships, whereby switching costs were significantly related to service loyalty to dental surgery and retail banks.



**Figure 2-5: Dimensions of Perceived Switching Costs in Gremler (1995)**

Another leading study measuring offline switching costs as a multidimensional construct is that of Jones and colleagues (2002). They

examined the constructs in relation to hair salon and banking clients. They offer the first comprehensive and valid multidimensional service switching cost scale, consisting of six unique underlying facets of switching costs associated with changing these service providers (Figure 2-6). They found that consumer switching behaviour in the two service contexts decreases as these costs increase.



**Figure 2-6: Dimensions of Perceived Switching Costs in Jones *et al.* (2002)**

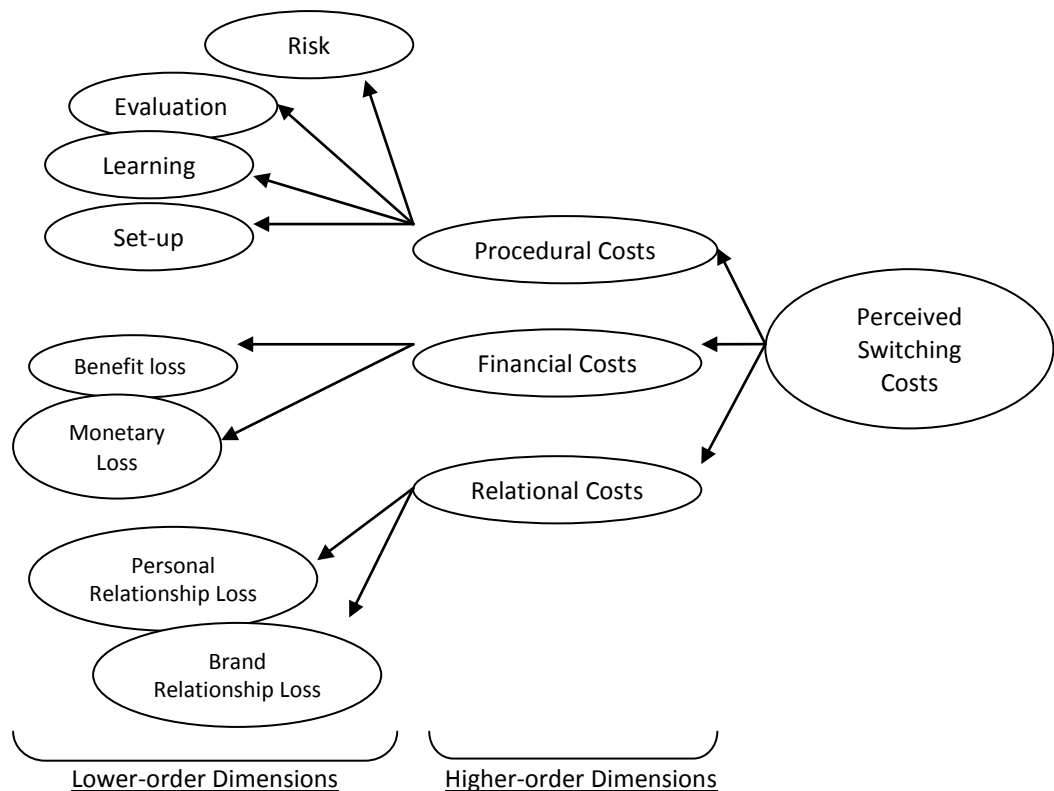
The first dimension, called *loss performance costs*, refers to customer perception of losing certain benefits and privileges in switching service

provider. Some examples of these benefits are frequent flier miles, discounts based on volumes or priority seating in a restaurant (Jones *et al.* 2002). The second dimension refers to *uncertainty costs*. These are customer perceptions of the probability of diminished service performance when switching to a different service provider. *Search and evaluation costs* refer to customer perception of time and effort needed in finding and gathering information on any new appropriate service provider when switching. *Behavioural and cognitive costs*, on the other hand, are the perceptions of time and effort in learning and understanding a new service provider after the switching has taken place. Set-up costs are also associated with time and effort costs, i.e., to relay the needs and information to a new service provider after the switching. Finally, sunk costs refer to customer perception of all costs *already* incurred, whether the costs are in terms of time, effort or money, or in establishing and maintaining relations with the current service provider. According to Jones (2002), all previous costs discussed will become sunk after switching has taken place.

Burnham *et al.* (2003) provide a highly applicable typology of customer perceived switching costs developed and tested using respondents from an offline credit card company and a long-distance telephone service provider. They divide the construct into three broad categories (Figure 2-7), which somewhat encompass the types of costs discussed earlier by other



researchers. The term *Procedural costs* refers to the extent to which switching service providers is associated with the expenditure of time and effort in analysing information to make choices, initiating new relationships and learning to understand and use a new service provider effectively. *Financial costs*, on the other hand, involve economic cost arising from loss of accumulated benefits and/or monetary cost associated with financial outlay in starting a new relationship (e.g. deposits, initial fees or assets that need to be replaced). Finally, *relational costs* are emotional or psychological losses encountered by customers with the breaking of bonds with the existing service provider. These costs may also consist of brand or personal relationship losses (Caruana 2004) (see Figure 2-7).



**Figure 2-7: Dimensions of Perceived Switching Costs in Burnham *et al.* (2003)**

All three representative offline studies confirming the multidimensional nature of switching costs focused on offline service sectors that are either contractual (financial services, telecommunication services, etc.) or high-touch in nature (hairstylist services, dental services, etc.) (see again Table 2-1, p. 44). As previously mentioned, this research investigates the influence of switching costs on loyalty in e-retailing, an environment that is highly transactional in nature.

### **2.6.2.3 The Online Market**

Research into online switching costs is relatively scarce (Balabanis *et al.* 2006; Chen and Hitt 2002; Goode and Harris 2007). The conventional belief that the online market environment creates a 'level playing field' for retailers, large or small, has led to the notion that switching costs are almost negligible in the online market context (Bakos 1997). Indeed, it is argued that a rival company is 'just a click away' (Friedman 1999) and that the open structure of electronic markets leads to the reduction of supplier power and entry barriers. This, in turn, leads to the lowering of customer perceived switching costs (Bansal *et al.* 2004; Chang, Jackson and Grover 2003; Chen and Hitt 2002; Porter 2001).

Furthermore, as previously noted, the researcher contends that the switching cost is most critical to the service sector (Zeithaml 1981) and in relational exchanges (Gremler and Brown 1996; Gultinan 1989), rather than in the internet market, which is more transaction-based. Past research found empirical evidence that switching costs have a negligible influence on customer loyalty towards the online retailer, and hence, can be regarded as unimportant in the online market (e.g., Holloway 2003).

Nevertheless, recent literature has found evidence of continuing customer loyalty to websites with which they are familiar and which they have been patronising for an extended period (e.g., Johnson, Moe, Fader,

Bellman and Lohse 2004; Murray and Haübl 2007). Moreover, Porter (2001) asserted:

*“When people talk about the ‘stickiness’ of websites, what they are often talking about is high switching costs.” (p. 7)*

Recent researchers also argue that the internet is particularly useful in building lasting relationships with customers and has given rise to the building of new switching costs. For example, in comparison with customer relationship management (CRM) in the offline market, the technology used for online CRM of many online services allows retailers to collect and analyse customer information efficiently and effectively. This permits them to market/work towards customised and personalised offerings that lead to greater switching costs on the internet (Rust and Kannan 2003).

As previously mentioned, perceived switching costs include monetary and non-monetary costs such as time and effort (Gremler 1995). Therefore, perceived switching costs are highly salient in the e-commerce environment, where customers are mainly co-producers of the majority of services they receive.

Although the importance of switching costs has been repeatedly recognised and investigated in the offline environment (especially in the service industry), the influence of such costs on retention has received scarce

attention in the online market literature, leaving several issues unresolved. It is for this reason that more research on this construct is needed.

The following section discusses the concept of alternative attractiveness, the second component of switching barriers studied in this research project.

## 2.7 BARRIER 2: ATTRACTIVENESS OF ALTERNATIVES

*“Customers operating only at the cognitive level are hypothesised to be more susceptible to switching caused by marketing overtures...” (Oliver 1997, p. 395)*

Another construct underlying customer online switching barriers proposed for examination is *alternatives attractiveness*. This refers to customer perceptions of the extent to which *viable* competing alternatives are *available* in the marketplace (Jones *et al.* 2000). Again, this construct is based on the customer's *perception* of other available companies who could alternatively provide the product and/or service in question. As such, it is not a measure of actual intensity of competition but rather the attractiveness of possible/acceptable alternatives as perceived by customers (Holloway and Beatty 2003; Park, Feick and Mothersbaugh 1994).

According to social exchange theory, individuals will act on the basis of an anticipated reward, tending to choose alternative courses of action that

can maximise that reward and/or reduce their costs. In other words, individuals' commitment to any relationship should increase when they are satisfied with the relationship and/or when there are no good alternatives available. Emerson (1962) and Thibaut and Kelley (1959) argued that the most important factor in explaining dependence and power is whether an alternative is perceived to exist.

In the context of marketing and customer behaviour research, the phenomenon of consumer dependency on an organisation arising from the lack of another alternative is captured by the construct alternatives attractiveness (Holloway 2003; Jones *et al.* 2000, 2002; Jones *et al.* 2007). This construct has been attributed different labels in the past, including knowledge of alternatives (Antón *et al.* 2007; Capraro, Broniarczyk and Srivastava 2003), attractiveness of available alternative (Holloway 2003; Jones *et al.* 2000; Ping 2003; Sharma and Patterson 2000; Whitten and Green 2005), availability and attractiveness of other providers' offers (Vazquez-Carrasco and Foxall 2006), impact of alternative providers (Yanamandram and White 2006a), switching inducement (Goode and Harris 2007), inattentiveness to alternatives (Kim and Son 2009) and quality of alternatives (Breivik and Thorbjornsen 2008; Caruana 2004). Table 2-4 presents descriptions of this construct from the literature. The dearth of attractive alternative offerings is the most favourable position for firms as noted by Ping (1993).

**Table 2-4: Description of Attractiveness of Alternatives from the Extant Literature**

<b>Contributing Authors</b>	<b>Label</b>	<b>Description</b>
Ping (1993, p. 329)	Attractiveness of Alternatives	<i>" [customer] estimate of the likely satisfaction available from an alternative relationship"</i>
Rusbult, Martz and Agnew (1998, p. 359)	Quality of Alternatives	<i>"...refers to the perceived desirability of the best available alternative to a relationship"</i>
Jones <i>et al.</i> (2000, p. 262)	Attractiveness of Alternatives	<i>"Customer perceptions regarding the extent to which viable competing alternatives are available in the marketplace"</i>
Julander and Söderlund (2003, p. 4)	Attractiveness of Alternatives	<i>"... whether viable alternatives exist in the market"</i>
Holloway (2003, p. 27)	Attractiveness of Available Alternatives	<i>"...the level of service expected in one's best available alternative to the present service provider"</i>
Kim, Park and Jeong (2004, p. 149)	Attractiveness of Alternatives	<i>"Reputation, image and service quality of the replacing carrier, which are expected to be superior or more suitable than those of the existing carrier"</i>
Li <i>et al.</i> (2007, p. 32)	Comparison Level of the Alternatives	<i>"Perceived desirability of an alternative website to the present relationship with the current website"</i>
Goode and Harris (2007, p. 518)	Switching Inducement	<i>"..any factor which could cause a customer to switch from one supplier to another"</i>
Breivik and Thorbjørnsen (2008, p. 447)	Quality of Alternatives	<i>"...based on a comparison level for alternatives of what a person could be expected to obtain and receive in some other, alternative relationship"</i>
<b>Researcher's compilation</b>		

Studies in the area of channel relations have shown that perceived alternative attractiveness is directly and positively associated with exit and negatively with loyalty (Ping 1993; Rusbult, Zembrodt and Gunn 1982). Direct effect has also been confirmed in offline (Bansal *et al.* 2005; Bendapudi and Berry 1997; Capraro *et al.* 2003; Jones *et al.* 2000; Keaveney 1995; Patterson and Smith 2003) and online (Li *et al.* 2007) consumer research contexts.

Moreover, these relationships have been similarly proven in the social exchange literature (Section 2.2 above).

In addition, the economics model of buying behaviour has classically posited that customers always base their decisions on the costs and benefits relative to other competing alternatives available in the market; that is, when the perception of available alternatives is low, the perceived benefits of changing provider are also low, thereby leading to retention. Even when customers are dissatisfied with an existing relationship, if they are unaware of other viable alternatives (Brucks 1985; Capraro *et al.* 2003) or if they do not perceive them as appealing, they are likely to remain with the current relationship (Li *et al.* 2007; Patterson and Smith 2003).

Related to this is the concept of provider heterogeneity, which refers to the extent to which competitors in the market are perceived by customers to be different and non-substitutable (Burnham *et al.* 2003). Perceptions of provider difference increase 'the cost of thinking' of customers associated with the decision to defect. As pointed out by Burnham, heterogeneity among providers requires customers to expend greater time and effort in comparing offerings. In addition, the skills learned with one provider may not be applicable to others. More time and effort spent in learning to use a website,



for example, means that the automaticity<sup>3</sup> resulting from website familiarity will no longer apply to other websites. As such, if firms acquire enough differential advantage (be it in the form of product, service or website), they will be able to maximise customer retention because customers will sense few attractive alternatives in the marketplace. Certainly, heterogeneous offering is one of the key factors in characterising difficult decision environments (Burnham *et al.* 2003; Heide and Weiss 1995; Porter 1985).

There are various impacts with respect to attractive alternatives and customer retention. Not only do large perceived differences among alternatives lead to customer retention, but the *lack* of perceived differences also influences customers to stay in existing relationships. According to Patterson and Smith (2003), when a customer perceives that alternatives are no different from their existing provider or does not perceive them as 'any more attractive' than their existing relationship, they tend to remain loyal to their current provider. In this situation, the customer perception is that switching is not worthwhile (Colgate and Lang 2001) because the net benefit from alternative relationships is not superior to the current relationship (Hennig-Thurau, Gwinner and Gremler 2000).

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<sup>3</sup> The concept of automaticity is closely related to habitual purchasing formation, discussed in greater detail in Section 2.8.1 (p. 80).

Past studies have also found that high perceived switching costs experienced by customers will have a negative influence on the perception of the attractiveness of alternatives. This is because customers with higher switching costs consider that switching to other companies is less desirable. Consequently, the customer eventually loses interest in company competitors (Kim and Son 2009). Past research also provides evidence of the tendency for switching cost perception to reduce the level of customer consideration of other alternatives (Heide and Weiss 1995), to reduce customer effort in searching for alternatives (Weiss and Heide 1993) as well as to reduce their propensity to search for alternatives (Zauberman 2003).

Thus, the offline marketing literature suggests the presence of at least three factors affecting customers' perceptions of the attractiveness of alternatives: existence of alternatives, heterogeneity (severity of difference) amongst alternatives, and high switching costs between alternatives. These will be considered in the later development of the conceptual model.

### **2.7.1 Alternative Attractiveness in the Online Market**

The advent of the internet has increased competition in the retail industry (Chen 2003; Porter 2001; Reichheld and Schefter 2000) and has further increased the choices available to customers (Murray and Häubl 2008). Consequently, the alternative attractiveness construct has become central in

online exchange research. According to Reichheld and Schefter (2002), developing online loyalty by reducing customer perceived alternative attractiveness should be an important goal of all firms with an online presence. This is because online customers are more susceptible than offline customers to switching inducement (Goode and Harris 2007). Furthermore, according to Borland (1998), the internet market can be regarded as *“the great retailing equaliser”* as it accommodates even very small firms to enter the marketplace and compete with the giants.

However, it is also noted in recent literature that customer search activities appear to be lower than originally thought in the online market (Johnson *et al.* 2004; Murray and Häubl 2008). Murray and Häubl (2008, p. 59) further argued that *“...even though competition is ‘only a one click away’, that is the distance many consumers are unwilling to travel”*. They also contend that once online shoppers have learned and familiarised themselves with the interface of a retailer’s website, they are very unwilling to switch to another. This argument is closely related to the concept of *choice reduction*. Although reduction in choices is never the main motivation of customers (Bagozzi 1995; Haugtvedt, Machleit and Yalch 2005) and despite customers always desiring freedom of choice (Hennig-Thurau *et al.* 2000), choice reduction is actually the key motivator driving customers to build relationships with firms and/or brands (Sheth and Parvatiyar 1995). For this reason, customers that are

strongly loyal or action-loyal to a company may also either consciously or subconsciously “*tune out competitive messages*” (Oliver 1999, p. 37) of alternatives.

Next section, discuss past literature of another important construct in this research namely, habit or habitual repurchase which is related to the concept of action-loyalty as discussed above and also in previous subsection 2.3.1.3 (p. 35).

## **2.8 HABITUAL REPURCHASE**

In everyday life, certain behaviour or activities are performed repetitively, often unintentionally. This regularity of activities is termed habit. In the offline customer domains, for example, a large number of buying and consumption activities are often repeated at certain times and/or places (Ji and Wood 2007). Also in the online context, when a customer feels a lack of substantial differences among competing online retailers selling the same product, repeat purchases may result from habit or inertia.

In economics, research into habit effects on behaviour originated in the 1960s (Gorman 1967; Stone 1966). It has been reported that the forming of habit in terms of product consumption leads to insensitivity towards monetary concerns such as product price (Becker, Grossman and Murphy

1994; Dynan 2000; Heien and Durham 1991). From the economics perspective, habit is formed because repetitions of past behaviour increase the marginal utility of performing the behaviour now and in the future (Becker *et al.* 1994; Heien and Durham 1991; Pollak 1970).

### **2.8.1 The Formation of Habit**

Drawing from the literature in social psychology, three factors, discussed below, lead to the formation of habit.

#### ***2.8.1.1 Repetition and Past Experiences***

The first factor refers to routine repetition of past behaviour (Wood, Quinn and Kashy 2002). The more frequently behaviour is repeated, the more likely it is for it eventually to become habitual (Ajzen 2001; Verplanken and Aarts 1999). Due to the importance of past behaviour repetition for habit formation, many studies have measured habit using *frequency of past behaviour* (Ouellette and Wood 1998; Verplanken and Aarts 1999). Indeed, this has become the standard measure of habit (Wood *et al.* 2002). However, although past behaviour may influence future behaviour, such behaviour does not necessarily become a habit, indicating that repetition alone is not enough for habit to develop (Verplanken 2006). In other words, the repeated occurrence of actions is not, in itself, a habit. As such, while it is generally

agreed that the level of frequency of a particular behaviour in the past does have a positive influence on the strength of habit (Limayem, Hirt and Cheung 2007), studies using frequency of past behaviour to measure the habit construct should be viewed with a degree of caution (Ajzen 1991, 2002; Wood *et al.* 2002).

#### **2.8.1.2 Satisfactorily Performed**

Second, the formation of habit is a function of a behaviour that is not only repetitive, but has always been *satisfactorily performed* (Gan, Gu, Jarvenpaa and Yang 2009; Wood *et al.* 2002). For instance, a Facebook user who checks her Facebook regularly, many times in a day, and who loves doing this, will eventually do this 'automatically'. On the other hand, a person who seldom uses Facebook and does not really understand the website may not develop this habit, always requiring the specific intention to do this particular task.

#### **2.8.1.3 Stable Context**

Habitual behaviour occurs in response to specific situations or stimuli; in other words, the situation is stable. In contrast, a non-habitual behaviour is an action that occurs in response to a context that is relatively novel or unstable (Ouellette and Wood 1998; Verplanken, Aarts, van Knippenberg and Moonen 1998; Wood *et al.* 2002). As such, there is the need for 'reasoned action' for

non-habitual behaviour as compared to habit, where actions occur with relative ease and predictability because of past practice. For instance when the performing of particular behaviour is considered to be helpful in changing a context (such as a surgeon performing surgery on patients), although having been performed repetitively in the past, it is unlikely to become habitual (Limayem *et al.* 2007; Ouellette and Wood 1998).

Table 2-5 presents past literature on habit in different research fields and Table 2-6 summarises the features of habitual behaviour as opposed to non-habitual behaviour from the perspective of social psychology field.

**Table 2-5: Selected Literature on Habit**

Authors	Context	Contribution	Description of Habit
Aarts and Dijksterhuis (2000)	Social Behaviour	Activation of travel goal will automatically trigger the habitual travel mode in the mind	<i>“Goal-directed automatic [behaviours] that are mentally represented”</i> (Aarts, Verplanken and van Knippenberg 1998, p. 1359)
Landis, Triandis and Adamopoulos (1978)	Social Behaviour	Investigation of the influence of habit and intention in driving teacher behaviour	Frequency of act in the history of organism behaviour
Mittal (1988)	Social Behaviour	Examination of the role of habit in the attitude and behaviour linkage of seat belt usage	Automated response
Verplanken and Aarts (1999)	Social Psychology	Summary of prior research to show that habit is a construct worth researching	Learned sequence of acts that have become automated responses to certain cues, the function of which is to obtain specific goals
Verplanken, Aarts and Van Knippenberg (1997)	Social Behaviour	Assessment of the role of habit in travel mode choices	Goal-directed type of automaticity
Guariglia and Rossi (2002)	Economics	Determination of further improvement needed in understanding consumption decisions reflecting habit in uncertain situations	No description
Becker and Murphy (1988)	Economics	Model habit development as a rational process	Past and future behaviour
Becker <i>et al.</i> (1994)	Economics	Empirical testing of the influence of habit in cigarette smoking	Past behaviour
Heien and Durham (1991)	Economics	Measure of the role of habit in the consumption of various goods	Past consumption
Pollak (1970)	Economics	Model of the way habit impacts on choices	Past behaviour
Limayem, Hirt and Cheung (2003)	Information Systems	Test of a model of IS adoption and post adoption	The extent to which using a particular IS has become automatic in response to certain cues in the environment



**Table 2-6: Features of Habitual Vs. Non-Habitual Behaviour from the Social Psychology Perspective**

Habitual Behaviour	Non-Habitual Behaviour
Repetitive behaviour occurs in a stable context.	Behaviour has been performed less frequently or in a shifting context.
Thought may not be necessary to guide action; i.e. a person can think of other non-related issues when engaging in habitual behaviour.	Thought is necessary to guide action.
Greater automaticity (involving minimal thought), given practised in the past.	Action is not automatic and involves conscious intention and reasoned action.
<p>Have the benefits of reduced feelings of stress, burnout and sense of being out of control.</p> <ul style="list-style-type: none"> <li>• Leads to increase in predictability and regularity</li> <li>• Can be performed together with other activities because habit behaviour needs minimal attention</li> </ul>	Feeling of stress increases with deliberation. It may drain self-control resources.

Source: Verplanken *et al.* (1998) and Wood *et al.* (2002)

### 2.8.2 Habit in the Customer Context

There are various contrasting views with respect to the conceptualisation of habit in the consumer behaviour field. Habit has been conceptualised in customer behaviour literature as inertial behaviour (e.g. Oliver 1997), spurious loyalty (e.g. Anderson and Srinivasan 2003; Dick and Basu 1994), routinised response behaviour (e.g. Evanschitzky and Wunderlich 2006; Oliver 1999) or habit persistence (e.g. Breivik and Thorbjornsen 2008; Roy, Chintagunta and Halder 1996). Most studies have distinguished this concept from brand loyalty and/or calculative commitment in so far as habit or inertia

represents non-conscious retention, is mostly unemotional, indifferent and driven by convenience. It is also characterised by absence of goal-directed behaviour (Huang and Yu 1999; Lee and Cunningham 2001; Zeelenberg and Pieters 2004).

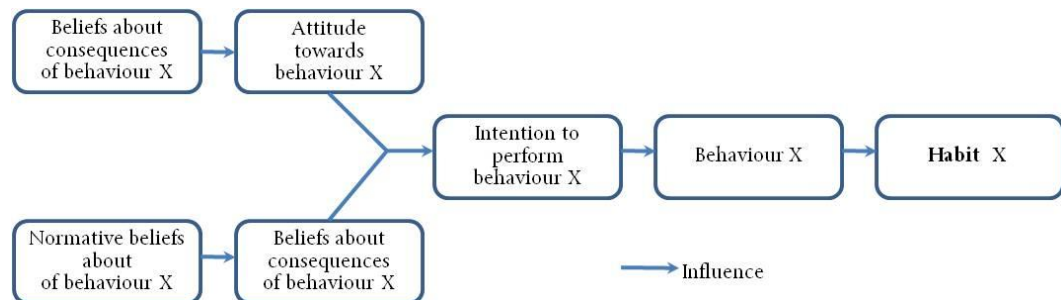
Several studies have reported that the variance explained by habit with respect to customer retention is considerably high (Ajzen 2002; Vogel, Evanschitzky and Ramaseshan 2008). Moreover, as the consequence of habit, approximately 40 to 60 per cent of individuals visit the same retailer to purchase products (Beatty and Smith 1987). Some panel data studies have also found that customer purchasing and consumption follows periodic, predictable and regular patterns (Khare and Inman 2006). Indeed, although habit is an important construct in customer behaviour, especially in understanding the customer decision making process, there has been a scarcity of research into the construct to date (Huang and Yu 1999). Most research on the construct has been conducted in the social psychology and information systems disciplines. Table 2-7 provides a number of definitions of the habit construct. These definitions are taken from various fields, namely, social psychology, information systems and consumer behaviour.

**Table 2-7: Definitional Effort of Habit**

Contributing authors	Definitions / description
Triandis (1980, p. 204)	<i>"situation-behavior sequences that are or have become automatic, so that they occur without self-instruction"</i>
Kahle and Beatty (1987, p. 229)	<i>"...type of behaviour or action, although not reasoned action. It may nevertheless derive from an action that at one time was reasoned"</i>
Beatty and Kahle (1988, p. 2)	<i>"well-learned schema with a behavioural content"</i>
Aarts, Verplanken and van Knippenberg (1998, p. 1359)	<i>"goal-directed automatic behaviours that are mentally represented...[that] can be automatically activated by environmental cues"</i>
Huang and Yu (1999)	customer repeat purchases of the same brand passively without much thought, in a relatively non-conscious process
Corstjens and Lal (2000, p. 283)	<i>"customers' reluctance to switch away from the brand purchased on the previous purchase occasion, all other things being equal"</i>
Odin, Odin and Valette-Florence (2001, p. 78)	<i>"repeat purchase of the same brand without a real motive of the choice made"</i>
Verplanken and Orbell (2003, p. 1314)	<i>"learned sequences of acts that have become automatic responses to specific cues, and are functional in obtaining certain goals or end-states"</i>
Limayem and Hirt (2003, p. 66)	<i>"non-deliberate, automatically inculcated response that individuals may bring to IS usage"</i>
Fujii and Kitamura (2003, p. 3)	<i>"a psychological construct implying 'goal-directed automaticity' in implementing a behaviour"</i>
Limayem et al. (2007, p. 705)	<i>"the extent to which people tend to perform behaviors (use IS) automatically because of learning"</i>
<b>Researcher's compilation</b>	

In their study of consumer attitude-behaviour relationship, Beatty and Kahle (1988) extended the theory of reasoned action (TRA) (Ajzen and Fishbein 1975) to include the construct habit. They noted that frequently repeated behaviours (which initially involved prior mental deliberation or 'reasoned action') result in the formation of habit (behaviour involving no mental pre-deliberation) (Figure 2-8). They also suggested that habit reflects *"a repetitively performed, stable behaviour which is not deliberated upon at*

*the time of the act*” (p. 3). In this light, habit is recognised as an important outcome of behaviour.



**Figure 2-8: Beatty and Kahle’s (1998) TRA model with the addition of Habit**

From the information systems (IS) perspective, habit has been discovered as a key factor in predicting continued usage of IS (Hong, Kim and Lee 2008; Liao, Palvia and Lin 2006; Limayem and Hirt 2003; Limayem *et al.* 2003, 2007; Wu and Kuo 2008), internet shopping (Liao *et al.* 2006), online customer retention (Mohamed and Vanessa 2005) and individual participation in the virtual community (Gan *et al.* 2009). Therefore, for research that investigates online customer loyalty, the inclusion of habit within the attitude-behaviour relationship appears to be both theoretically and empirically important. The next subsection discusses the role of habit in online purchasing,

### **2.8.2.1 Habit and Online Purchasing**

First, compared to offline purchasing, online purchasing has been characterised by researchers as being of significant risk and uncertainty (e.g.

Grewal, Munger, Iyer and Levy 2003; Ng, Gupta and Hee-Woong 2007), resulting in the customer tendency to remain with the few e-retailers they trust (Bart, Shankar, Sultan and Urban 2005; Cheung and Lee 2006; Gefen and Straub 2004). If the cognitive effort in rationalising the action to purchase from the e-retailer for the first time is high, it is sensible to assume that the customer makes the decision once and then relies on the status quo choice for subsequent decisions (Ng *et al.* 2007).

Secondly, customers prefer to repeatedly purchase from the same website simply because the activity has become relatively easy to perform (due to previous practice). In this sense, customers experience 'cognitive lock-in' in terms of the patronage or usage of the same services overtime (Johnson, Bellman and Lohse 2003; Murray and Häubl 2007; Wood and Neal 2009). Empirical evidence reported by Murray and Häubl (2007) demonstrates that most choices made by customers are determined by this 'skill-based habit of use', which refers to:

*"goal-activated automated behaviours that develop through the repeated consumption or use of a particular product... [which] explain how customers become locked in to an incumbent product." (p. 77)*

Murray and Häubl (2007) also differentiate between the concepts of 'skill-based habit of use' and 'habitual choice'. 'Habitual choice' relates to

customers that purchase the same brand consistently, while 'skill-based habit of use' describes how that habitual behaviour evolves and becomes automated due to regular and repeated experience of the behaviour.

For example, a person *planning* to buy a book on the internet for the first time may consciously choose to purchase from Amazon. This first decision will have been based on 'reasoned action' (Figure 2-8) and may be difficult or require more mental effort. Once that activity has been regularly (Subsection 2.8.1.1) and satisfactorily performed (Subsection 2.8.1.2), it becomes habitual (minimising the cost of decision making) and subsequent *decisions* to buy a book (Subsection 2.8.1.3) "*will be strongly associated with and can automatically activate*" (Aarts *et al.* 1998, p. 1360) the purchase venue option 'Amazon' in the customer's mind.

In addition, Amazon will subsequently be the *obvious* online retailer choice for different product purchase goals (e.g. CDs, electrical goods, electronic gadgets or Christmas gifts). As such, habit can also be generalised across situations (Aarts *et al.* 1998).

Furthermore, when customers acquire specific skills to navigate or purchase from a website, cognitive lock-in is heightened due to 'skill-based habit of use'. This provides the retailer's website with a competitive advantage over alternatives.

### 2.8.3 Is Customer Habitual Repurchase Similar to 'Spurious Loyalty' or 'Action Loyalty'?

As previously discussed in the loyalty section (pp. 27 to 35), both Oliver (1999) and Dick and Basu (1994) conceptualised loyalty as a highly complex multi-faceted construct (see Figure 2-2, p. 31 and Figure 2-3, p. 32).

Dick and Basu (1994) equate the concept of inertia or habitual purchasing with 'spurious loyalty' (Figure 2-3), in which a *"low relative attitude [is] accompanied by high repeat patronage"* (p. 101). They even warn that customers in this loyalty category are very much prone to switching and are more likely to be very sensitive to competitors' marketing effort. Indeed, the terms inertia and spurious loyalty (an unfavourable category of loyalty for firms' own customers) have been used interchangeably by some writers (e.g., White and Yanamandram 2004), an approach or tradition that has been followed by many scholars in the field of consumer behaviour (e.g. Anderson and Srinivasan 2003; Bloemer and Kasper 1995). Also, in those articles, focus is given to how instable the relationship between a customer and firms when the customer is in inertia state of loyalty. On the other hand, as discussed previously in Subsection 2.3.1.1 (p. 33), Oliver (1999) posits that specifically in the action-loyalty phase, customer are showing inertial repurchasing pattern.

In this thesis, Dick and Basu's (1994) stance that an inertia customer is a spurious loyal customer is challenged. Human behaviour is generally very stable, overshadowing attitude and intention (Ajzen 2002; Triandis 1977). Individuals often have the intention of doing something but revert to past patterns of behaviour. This phenomenon of habitual behaviour is important to consumer purchasing because it helps to *"conserve limited mental resources in decision making"* (Khare and Inman 2005, p. 35) and *"decrease[s] the complexity of consumers' decision making"* (Verplanken and Wood 2006, p. 92), so that the purchase (which initially may involve prior mental deliberation, 'reasoned action' and deliberation) can be automatically made with *"minimal conscious control"* (Ajzen 2002, p. 108) and high *"efficiency"* (Verplanken and Wood 2006, p. 93). As described by Azjen (2002, p. 107):

*"Even complex behaviours that are initially guided by explicit intentions and self-regulation can, with sufficient repetition and practice, habituate and become automatic in the sense that they can be performed... outside awareness."*

Because greater mental capacity is required to discard habit, defection to competitors may be a challenge to customers because such behaviour requires conscious guidance and deliberation. Established habits are extremely resistant to change (Liao *et al.* 2006) and difficult to overrule (Aarts



and Dijksterhuis 2000; Verplanken and Orbell 2003) with alternative offerings. This notion contrasts with Dick and Basu's (1994) 'spurious loyalty' concept, where customers in this category of loyalty are very much prone to switching, rendering this the most unfavourable loyalty condition for the e-retailer.

### **2.8.3.1 The Similarity between Action Loyalty and Habit**

In respect to the preceding discussion, this thesis is in agreement with Oliver (1999) rather than with Dick and Basu (1994). In describing the four-phases of the loyalty concept (Figure 2-2), Oliver (1999) argues that *action-loyal* phase (a concept akin to Dick and Basu's 'true loyalty', rather than 'spurious loyalty') is:

*"..governed by inertial purchasing..(and have)...deep commitment to repurchase, so much so that behaviour may be guiding itself in some habituated manner" (p. 37)*

According to Oliver, action loyal customers adopt habit and routinised response behaviour, and are *immune* to competitors' inducements to switch, as they will engage less (if at all) in any search for and evaluation of competitors' marketing communication (Oliver 1997, 1999). This contrasts with 'spurious' or cognitive loyal customers, who are very highly susceptible to competitors' overtures. According to Vogel *et al.* (2008, p. 101), this *"inertia effect is rational because it helps customers achieve satisfactory*

*outcomes by simplifying the decision-making process and saving the costs of making decisions.”* Hence, habit reduces the complexity of decision making with respect to an action (Ajzen 2002; Verplanken and Wood 2006).

In the online context, the vast majority of online customers bookmark their favourite retailers’ websites and visit them more than those of competitors (Anderson and Srinivasan 2003). Over time, as trust is established, the positive influence of satisfaction on loyalty will increase significantly and the customer will transit from problem solving to relying on well-established habitual purchasing behaviour (Johnson *et al.* 2003; Johnson, Herrmann and Huber 2006). In other words, the behaviour of customers online will become routine after some time as they become accustomed not only to purchasing through a particular retailer’s website, but also to navigating around it. Habit has far more impact on future behaviour than either attitude or intention. Thus, it is posited that promoting habitual purchasing is the best way to ensure customer retention and loyalty in the competitive and information-intensive internet environment.

Having reviewed the literature, the next section will indentify and highlight potential research gap to be filled.

## 2.9 GAPS IN THE LITERATURE

This chapter offers an overview of the extant literature and reveals several research gaps for further research. As mentioned previously, substantial research into the role of switching barriers in marketing has been undertaken in the offline context. Studies in this area are mainly limited to service industries which are either contractual or high-touch in nature, such as banking and hair salons (Jones *et al.* 2002), credit card and long distance phone call providers (Burnham *et al.* 2003) and financial services (Bansal and Taylor 2002; Colgate and Lang 2001). Only in recent times has the role of switching barriers received attention in e-retailing research (e.g. Balabanis *et al.* 2006; Chen and Hitt 2002; Goode and Harris 2007; Yang and Peterson 2004), generating mixed results. This may be due to the assumption that switching barriers are not as important online as they are offline mainly because consumers have numerous alternatives to which they can switch very easily (e.g., Bakos 1997; Friedman 1999; Holloway 2003).

However, as already mentioned, recent research has found that a wide range of choice may not necessary be good for consumer mental health (Murray and Häubl 2008). On the contrary, this may have adverse consequences, such as diminished self-control, reduced satisfaction levels, increased 'cognitive dissonance' and regret (Baumeister and Vohs 2003;

Carmon, Wertenbroch and Zeelenberg 2003). As a consequence, internet shoppers are generally hesitant to switch (Murray and Häubl 2008), rendering e-retailers 'stickier' (Brynjolfsson and Smith 2000; Johnson *et al.* 2003) than originally anticipated.

While many studies have employed switching costs as their main construct, there has been very little effort to develop robust measures of online switching costs. The multifaceted typologies and dimensions of switching costs denote the complex nature of the construct. However, empirical research in this area has treated switching costs as unidimensional (e.g. Fuentes-Blasco *et al.* 2010; Goode and Harris 2007; Kim and Toh 2006; Wang 2004), measuring such costs as a global construct. This approach ignores the conceptual richness of the switching costs construct, which is too complex to be operationalised as unidimensional (Burnham *et al.* 2003). Aydin *et al.* (2005) specifically highlight the need for future research to investigate the sub-dimensions of switching costs.

Although there have been some attempts to assess switching costs online, no research to date focuses specifically on the issues of pure-play internet retailers. It is important to distinguish the effect of pure online companies and bricks-and-click companies. A study carried out by Shanker *et al.* (2003), for example, has found *differences in the magnitude* of loyalty and

satisfaction towards an online retailer versus offline retailer selling the same product. Another study by Holloway (2003) has found that consumer relationships with bricks-and-click retailers are stronger than online only retailers. To a certain extent, being a multichannel retailer may affect consumer loyalty and retention. This is because the brand name, physical presence and tangibility of the retailer's physical store are likely to enhance customers' familiarity with its online counterparts (Pan *et al.* 2002). This may leverage customer loyalty and lead to over-estimation of the relationship in a research model [see, for example, Danaher *et al.* (2003)]. Hence, another goal of this research is to achieve a clearer understanding of the role of switching barriers in the *pure* online retailing environment, answering the call for solid empirical work in this area. This research represents the first attempt not only to study switching barriers *explicitly* with respect to pure 'dot com' retailers, but also to incorporate multidimensional switching costs in this context. As noted by Chen and Hitt (2002, p. 256):

*"Despite the critical role of switching costs in e-commerce strategy, there is surprisingly little empirical evidence about the presence, magnitude, or impact of switching costs on customer behaviour."*

As discussed, most empirical evidence of switching costs (online and offline) has resulted from examination of the direct association between the

construct and customer retention (e.g. Jones *et al.* 2002; Ping 1993). Recently, scholars have begun to explore the moderating role of switching costs on the satisfaction and retention link although with mixed results (Bell *et al.* 2005; Patterson and Smith 2003). This suggests that more empirical work is needed to explore the interaction effect of switching costs to confirm past findings.

Habit or inertia is one of the constructs that is considered important in consumer behaviour, and is closely associated with consumer loyalty and retention. However, as described earlier, while habit is a key determinant of customer retention, as theorised in past research stemming mainly from the social psychology and information system arenas, there is a dearth of research on this subject in the consumer behaviour arena. In the online retailing context, where visiting and purchasing from particular websites can be a habitual behaviour, the inclusion of this construct is very necessary. Furthermore, the mix of opinion among scholars with regards to the habit concept indicates the need for more research into habit to be conducted. Therefore, this study aims to extend the existing research into the social exchange framework application to retailing by including habit as an additional construct.

In light of the gaps identified, the objective of this research is to investigate the role and importance of perceived switching costs and

alternative attractiveness in increasing customer retention for online retailers. It is important to note that the research does not specifically examine the development of customer loyalty as this has been widely studied in past studies; rather it explores the role and importance of perceived switching costs and competitors' switching inducements (attractiveness of available alternatives) in relation to customer retention.

## **2.10 SUMMARY**

This chapter presents a discussion of literature associated with customer loyalty, satisfaction, switching costs, alternative attractiveness and habit loyalty from two relevant perspectives. First, a brief discussion of the above concepts was conducted from the social psychology perspective. This was followed by a more detailed discussion from the marketing and consumer behaviour perspectives. This is in line with the objective of the research, which seeks to investigate the role of perceived online switching barriers as one of the key factors explaining and predicting customer retention in online retailing. The literature based on social psychology theories associated with prediction of personal relationship commitment and relationship persistence provide the initial reference base for the development of the conceptual model and hypotheses, which are presented in the next chapter. In addition, the conceptualisation and hypotheses chapter presents the facets of the

switching costs construct that are relevant to the online retail industry, particularly the pure-players. This necessitates discussion of the individual dimensions that have been identified as relevant to this study and justifications for their inclusion.



## **Chapter 3**

### **CONCEPTUAL FRAMEWORK AND RESEARCH HYPOTHESES**

#### **3.1 INTRODUCTION**

The preceding chapter reviewed the main literature concerning the major constructs considered important to the study. The review of the literature has also highlighted several research gaps worthy of further investigation. This chapter, therefore, discusses the proposed conceptual framework that underpins the research and also presents the hypotheses formulated to test the model. The resulting hypotheses are developed based on the previous literature review.

#### **3.2 FACETS OF ONLINE PERCEIVED SWITCHING COSTS**

One of the goals of this research is to conceptualise online perceived switching costs as a multidimensional construct. The research also attempts to unify the current theoretical discussion and to develop a set of switching costs pertinent to an internet retailer context. The 2002 study by Jones *et al.* was the first to conceptualise switching costs as multidimensional. Despite the views of some scholars who acknowledged the importance of examining multidimensionality (e.g., Amit and Zott 2001; Johnson *et al.* 2003; Johnson *et al.* 2004; Murray and Häubl 2007), efforts to develop a valid and

comprehensive measure of online switching costs have been limited. This research uses the following definition of switching costs provided by Gremler (1995, p. 86):

*“...costs, including investments of time, money or effort that are perceived by customers as factors that make it difficult to purchase from a different firm.”*

The definition is compatible with the view of switching costs as a higher-order construct – with various unique categories comprising financial and non-financial factors associated with changing retailer, which will be discussed in the next section.

Table 3-1 presents a comparison of different classes of switching costs used. As explained previously, although perceived switching costs have been categorised in various ways by different researchers, the underlying concept remains constant. Valuable insights from empirical studies undertaken on offline service switching costs have provided the researcher with the foundation for this categorisation. However, as most of these past studies focused specifically on customers’ switching of offline service providers (e.g., hair salon, bank, credit card and long distance phone service), some adaptation and/or modification, in terms of the dimensions and measurements will be necessary.

**Table 3-1: Customer Perceived Switching Cost Categories**

Guiltinan (1999)	Fornell (1992)	Klemperer (1995)	Gremler (1995)	Jones <i>et al.</i> (2002)	Mathwick (2002)	Burnham <i>et al.</i> (2003)	Johnson <i>et al.</i> (2003)	Thatcher & George (2004)	Balabanis <i>et al.</i> (2006)	Colgate <i>et al.</i> (2007)	THIS STUDY
	Learning	Information Physical		Post-switching Behavioural & Cognitive Set-up	Effort	Learning	Cognitive Search Physical Search	Learning Transaction		Time and Effort	Learning
	Search			Pre-switching Search & Evaluation		Evaluation			Convenience		Search and Evaluation
Continuity	Emotional Psycho-logical Risk		Continuity	Uncertainty	Continuity	Risk			Familiarity Speed	Perceived Risk	Uncertainty
Contractual	Loyalty Discounts Transaction Financial Risk	Artificial	Contractual	Loss Performance	Contractual	Monetary Benefit Loss		Artificial	Economic	Switching Costs	Artificial
		Non-economic 'Brand Loyalty'				Brand Relationship Loss			Emotional		Brand Relationship
Psychological Commitment		Psychological		Interpersonal Relationship		Personal Relationship Loss				Social Emotional Bonds	
Set-up			Set-up Habit			Set-up					
	Habit										
	Social Risk										
									Parity		
									Unawareness		

There is also evidence of both commonalities and discrepancies in the area of switching costs between the online and offline environments. It was found that some switching cost constructs unearthed in the literature in the physical market environment were either unimportant or irrelevant in the internet market environment. For instance, the dimension *personal relationship loss cost* (Burnham *et al.* 2003) can be considered as irrelevant due to lack of face-to-face interaction between customers and e-retailer's employees. It should be noted that Burnham *et al.* examined switching costs specifically in the U.S. credit card and phone service markets, and this influenced their choice of switching cost categories. Other are *set-up costs* which, according to Gultinan (1989), are time and effort costs incurred in initiating a transactional relationship. While some effort is needed to register with a new website prior to making any transactions (Balabanis *et al.* 2006), the perception of set-up cost is more salient for offline services characterised as complex, heterogeneous and/or intangible. Examples of set-up costs when purchasing from a new offline service provider for the first time include "*filling out forms when changing banks, getting new X-rays when changing dentists, paying membership fees when changing gyms, and explaining a desired hair style when changing barbers*" (Jones *et al.* 2002, p. 443). In contrast, in the online environment, virtually the entire process of initiating or terminating a transactional relationship is realised electronically, such as via

identity management software to relay customer information to a new e-retailer (Chen and Hitt 2006).

The following subsections will discuss the proposed categories of customer perceived switching costs that are considered to be relevant and important in the online retail environment.

### **3.2.1 Learning Costs**

The first type of costs identified from the literature is *learning costs*, described as the “*expenditure of time and effort to learn, understand or use the new service effectively*” (Burnham 1998, p. 107). Klemperer (1987) describes learning costs as any costs (including time) that are needed in ‘learning to use’ a firm’s product line or brand. Learning costs can become sunk costs that are not transferable to other relationships (Jones *et al.* 2002) especially if there are heterogeneous offerings and websites between different retailers (Chen and Hitt 2006). Scholars argue that this also include all the costs (e.g., time and effort) associated with customers having to adapt to and familiarise themselves with conducting transactions on an unfamiliar website (Burnham *et al.* 2003; Jones *et al.* 2002). According to Johnson *et al.* (2003), customers remain with a particular website to avoid the inconvenience of learning to navigate a new one. They suggest that there is even a learning curve associated with using a website (Chen and Hitt 2006).

Mastery of a new website increases the attractiveness of that website and thus raises the perceived cost of switching to another. When a website is attractive, the propensity to continue using it is higher than the desire to use others. Over time, the more experienced the customer becomes with an e-retailer's website, the stronger will be the 'cognitive lock-in' of that customer (Johnson *et al.* 2003; Johnson *et al.* 2004). Just as an offline firm can discourage customers from leaving on the basis of high physical costs (location, parking space, etc.), an online firm can lock in customers on the basis of high cognitive cost.

As such, learning costs may become a significant hindrance to switching, especially in the information-intensive internet environment (see also, Chen and Hitt 2002).

### **3.2.2 Artificial Costs**

*Artificial switching costs* are defined as the costs that arise from actions initiated by a firm in order to retain customers and to make it more expensive for them to switch suppliers (Klemperer 1987). Klemperer describes how companies can create artificial switching costs, using frequent flyer programmes and discounts as examples. In similar vein, the use of artificial switching costs are referred by To (1996, p. 31) as a strategy initiated by the

marketer to “*lock-in consumers*”. Shapiro and Varian (1999, p. 127) uses the term “*artificial lock-in*” to describe this type of switching costs.

In contrast, Gremler (1995) and Chen and Hitt (2006) term this type of switching cost as contractual cost. Gremler (1995) divides it into two categories: 1) costs incurred through loyalty programmes (e.g., airlines’ frequent flyer miles, play.com reward card, Amazon MasterCard loyalty points, etc.); and 2) costs arising from penalties (e.g., early termination fee for phone contract) or the forfeiting of deposits (e.g., for deposit banking). Artificial costs are also analogous to Burnham *et al.*’s (2003) ‘financial dimension’ and Jones *et al.*’s (2002) ‘loss benefit cost’ dimension (Balabanis *et al.* 2006).

In the online context, the closest examples of artificial costs or contractual costs are reward points and repeat purchase discounts. By switching their purchasing to a competitor’s website, the customer will lose the loyalty rewards accumulated with their previous supplier. Some studies have looked at reward programmes that create switching costs in the online environment (e.g., Kim, Shi and Srinivasan 2001; Liu 2007).

Although artificial costs are usually time limited, more significantly, they reflect a type of switching cost that can be easily controlled or manipulated by the firm (Chen and Hitt 2006).

### 3.2.3 Uncertainty Costs

Uncertainty costs refer to the customer's perception of future costs or losses associated with possible negative consequences incurred by switching to an unfamiliar or untested retailer (Colgate and Lang 2001; Guiltinan 1989; Klemperer 1995; Mitchell 1999). This construct is equivalent to Burnham *et al.*'s (2003) 'risk costs'.

Uncertainty cost is closely linked to the perception of risk (Taylor 1974). Consumers often face a dilemma in making choices because the outcome of their choice will only be known in the future. Perceived risk has been described by Bauer (1967, p. 23) as "*a combination of uncertainty plus seriousness of outcome involved*", which becomes a barrier to purchase and switching behaviour. Consumers also tend to worry about the type and degree of loss resulting from new consumption. In the UK, as reported by Mintel-Oxygen (2007), the majority of online consumers has limited knowledge of their rights to cancel a product. Moreover, they do not know where to obtain advice about their rights. These factors lead to a magnified sense of risk associated with online shopping.

The literature review reveals several components of perceived risk of purchasing online (Forsythe and Shi 2003; Liebermann and Stashevsky 2002):



Performance risk:	The possibility of negative outcomes during the switching process or resulting from the way the new retailer operates as well as the uncertainty of not getting what is wanted.
Financial risk:	The risk of incurring unprecedented expense with the new retailer (e.g., the cost of returning faulty merchandise, unexpected additional charges sometimes added at the later stages of purchase <sup>4</sup> and the possibility of late or non-delivery).
Convenience risk:	The risk of wasting more time and effort when switching to the new retailer. This risk may stem from difficulty of navigation, order submission and/or delays in receiving products (Forsythe and Shi 2003) as well as the time and effort spent to resolve problems.
Privacy and security risk:	Risk of lack of control over personal information and fraudulent use of identity and financial information. This also includes potential losses due to fraud and credit card information theft (Liebermann and Stashevsky 2002).

In addition to the above types of risk, a qualitative study conducted by Liebermann and Stashevsky (2002) has identified a number of components of perceived risk relevant to online consumers:

- Lack of physical contact on the internet

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<sup>4</sup> According to Mintel-Oxygen (2007), UK online consumers are estimated to incur around £60 to £100 million a year in unexpected additional charges by e-retailers.

- Failure to deliver the products as promised
- Misrepresentation of advertisement
- Unreliability of information supplied
- Pornography and violence

Due to the lack of face-to-face interaction and the remoteness of transactions, perceived risk and uncertainty are higher online. Trust becomes more important in the online environment than in the traditional shopping environment as customers have to part with their money first and cannot be certain when or whether the product purchased is going to be delivered (Balabanis *et al.* 2006). Furthermore, the security risks associated with online transactions and internet fraud may force online shoppers to remain with a small number of websites that they trust. As noted by Balabanis *et al.* (2006), as trust is more crucial in the online retailing environment, customers will be reluctant to switch if they have trust in a website. Some consumers are even reluctant to complete a simple online transaction due to these uncertainties (Hoffman, Novak and Peralta 1999; Jarvenpaa, Tractinsky and Vitale 2000).

Thus, uncertainty costs are more important in the online environment where security, privacy and delivery issues are considered a priority. As Balabanis *et al.* (2006) have pointed out, the reasons preventing online

customers from re-registering with large numbers of websites are associated not only with inconvenience, but also with security and privacy risk issues.

#### **3.2.4 Search and Evaluation Costs**

These costs are basically those incurred by customers when searching for a suitable alternative retailer to switch to (Chen and Hitt 2006; Stiglitz 1989). According to Bakos (1997), customers who have access to the internet face lower search and evaluation costs. These customers are argued to be more demanding and will make less compromise in terms of their ideal products or services. Bakos (1997) further noted that internet purchasers are better-off because they are able to enjoy better products, allocational efficiencies, lower total search costs and cheaper products. Shapiro and Varian (1999) express a similar view when they assert that the process of searching, evaluating and learning about a new brand will be transformed noticeably with the advancement of IT and the World Wide Web as the search and evaluation costs for internet purchasers will be reduced.

Despite these claims, there is evidence of a contrary trend. Customers conduct less comparison shopping and switch to alternatives less frequently online than in traditional (offline) environments (Chang and Chen 2009; Srinivasan *et al.* 2002). In one related study of customer internet search behaviour, Adamic and Huberman (2001) reveal that the top 1 per cent of

online sites attract at least 50 per cent of all visitor traffic. This supports the view that internet purchasers restrict their search and comparison to just a small number of the most popular websites (Chang and Chen 2009). This phenomenon is consistent with claims of “*consumer confusion and information overload*”, where too much information and increased choice can actually harm customers (Wilson and Price 2005, p. 1).

Johnson *et al.* (2003) identified two types of search costs as potential reasons for customers remaining with a retailer (lock-in); ‘physical search cost’ and ‘cognitive search cost’. *Physical* search cost refers to the perceived time and effort in *seeking* the information necessary to make an informed switching decision, while *cognitive* search cost refers to the perception of time and effort expended in *making sense* of information sources and analysing the information that has been collected (Johnson *et al.* 2003; Payne, Bettman and Johnson 1993). Some researchers refer to this as an evaluation cost (e.g., Burnham *et al.* 2003; Jones *et al.* 2002). These costs have been claimed to reduce search of alternative offerings (Weiss and Heide 1993) and limit consideration set formation (Heide and Weiss 1995).

The physical (offline) retailing environment requires more time and effort of customers in their search for viable alternatives as compared to the online environment, where product information acquisition is much easier.

Shop-bots and search engines have also made information searching and comparison simpler and quicker for customers. However, as Johnson *et al.* (2004) have demonstrated, ease of search on the internet *does not* lead to more searching. In contrast, online customers engage in fewer comparisons and tend to remain attached to the small number of websites with which they are familiar (Smith 2002). According to a study on cognitive lock-in, online customers display a short-term orientation that leads them to select their favourite site to use repeatedly even though this choice may not result in the lowest price for the sought product (Johnson *et al.* 2003). Even if the overall level of physical search cost is reduced, a previously used website still holds a relative cost advantage that influences switching behaviour (Zauberman 2003). This brings us to the second type of search cost, the *cognitive search cost*.

Balabanis *et al.* (2006, p. 215) associate cognitive search cost with “*the difficulty for shoppers to determine the credibility and authenticity of review reports; to evaluate the multitude of often contradictory customer reviews; to understand technical information in the absence of expert advice*”. The low entry barrier to firms operating online produces huge amounts of information. This challenges the human brain’s capacity to process information. Further, new information is processed only when it is felt to be significant and/or relevant (Lee *et al.* 2000) for the brain to cope with the

problem of information overload (Johnson *et al.* 2004; Reichheld and Schefter 2000). In the online environment, for instance, one-stop shopping can greatly reduce the time and effort of customers in searching for different vendors.

In addition, convenience is one key factor of buying online (Bhatnagar, Misra and Rao 2000; Donthu and Garcia 1999; Jarvenpaa and Todd 1996). Compared to offline shoppers, internet shoppers are much more driven by the need for convenience (Anderson and Srinivasan 2003; Donthu and Garcia 1999). Therefore, *“they are less likely to inconvenience themselves by repeatedly searching for new providers for their products and services”* (Anderson and Srinivasan 2003, p. 126).

Despite suggestions that competition and the internet lower search costs and increase switching (e.g., Bakos 1997; Sinha 2000), there is growing evidence to the contrary. The studies discussed above suggest that search and evaluation costs remain high on the Internet, or *“at least consumers behave as if search costs are high”* (Chen and Hitt 2006, p. 446).

### **3.2.5 Brand Relationship Loss Costs**

The final cost is identified as the feeling of loss in leaving a brand (Burnham *et al.* 2003). This relational cost is one that few authors identify as being important in deterring customers from moving to a competitor. According to

Burnham *et al.* (2003, p. 112), there can be *“affective losses associated with breaking the bonds of identification that have been formed with the brand or company”*.

It has long been recognised by scholars in services marketing that brand equity and corporate image are signals of quality (Bolton, Lemon and Verhoef 2004). Having trust in a brand will lead to brand commitment, which enhances customers' switching costs perception (Ailawadi, Neslin and Gedenk 2001) and lowers customers' propensity to switch (Moorman, Deshpandé and Zaltman 1993; Morgan and Hunt 1994). This is especially true in services that are experiential (Davis, Buchanan-Oliver and Brodie 2000) such as e-retailers, where customers' self-participation on the website is required in the service creation and delivery. Strong identification with and trust in the retailer's name is particularly crucial online. As noted by Reichheld and Schefter (2000, p. 107), *“... all other attributes, including lowest cost and broadest selection, lagged far behind. Price does not rule the Web; trust does.”* Due to the lack of face-to-face interaction and relatively uncertain outcomes of purchasing from a website, customers must rely on trust in the retailer's brand name as one strategy to reduce perceived risk.

**Table 3-2: Proposed Switching Cost Sub-Constructs**

Types	Description	Examples	Key References
Learning Costs	Time and effort costs that arise from learning to understand or use a new e-retailer effectively	Learning and being comfortable with new retailer's website, terms of service, etc.	(Burnham <i>et al.</i> 2003; Chen and Hitt 2006; Dick and Basu 1994; Gremler 1995; Guiltinan 1989; Jones <i>et al.</i> 2002; Klemperer 1995)
Search and Evaluation Costs	Time and effort costs incurred in seeking out information about acceptable alternatives and analysing their viability		(Burnham <i>et al.</i> 2003 as 'Evaluation Costs')
Artificial Costs	Costs incurred due to specific actions of e-retailer to retain customers	Loss of loyalty benefit from certain programmes, rewards, accumulated points benefit or cumulative volume discount	(Burnham <i>et al.</i> 2003 as 'Benefit Loss Costs'; Guiltinan 1989 as 'Contractual Costs'; Klemperer 1995; Nilssen 1992)
Uncertainty Costs	The cost (or risk) incurred because of possible reduction in service performance	Unforeseen financial loss and/or a waste of time and/or effort if a new or untested e-retailer is used	(Balabanis <i>et al.</i> 2006 as 'Familiarity and Speed Barriers'; Burnham <i>et al.</i> 2003 as 'Risk Costs'; Gremler 1995 as 'Continuity Costs'; Guiltinan 1989 as 'Continuity Costs'; Jackson 1985; Jones <i>et al.</i> 2002; Jones <i>et al.</i> 2007; Klemperer 1995)
Brand Relationship Loss Costs	Psychological or affective cost incurred from breaking bonds with current e-retailer's brand		(Aaker 2009; Burnham <i>et al.</i> 2003; Porter 1980)

Customers are likely to feel a strong bond of identification when organisations or brands are seen as unique (Bhattacharya, Rao and Glynn 1995). Strong brand image and positive brand attitude reinforce the relationship between customers and retailers, making the switching process more costly (Burnham *et al.* 2003; Polo and Sesé 2009). Switching to an unfamiliar alternative brand or e-retailer will mean that customers may suffer



from affective losses resulting from breaking the bonds with the brand. This retailer-based psychological bond is also loss in switching to an alternative (Burnham *et al.* 2003). It is in this sense that a positive attitude towards an e-retailer's brand leads to switching costs in the eyes of customers.

Five categories of customer switching costs pertinent to online retailers were proposed. Three categories represent the procedural (time and effort) costs components (learning costs, search and evaluation costs and uncertainty costs), the economic or monetary costs component (artificial costs), and the relationship-based or psychological costs component (brand relationship loss costs). Table 3-2 provides the summary of these costs.

Having indentified and proposed the dimensions of online customer perceived switching costs to be assessed; next subsections are focus on the development of hypotheses for this research.

### **3.3 SATISFACTION, LOYALTY AND HABIT**

Although the role of satisfaction in influencing loyalty is more complicated than initially thought (Mittal and Kamakura 2001; Oliver 1999), there is substantial empirical evidence in the literature linking global cumulative satisfaction to loyalty (Oliver 1997; Szymanski and Henard 2001). In essence, consumers are likely to develop positive intention towards behaviour (i.e.

repeat purchase or online transaction), if they have a positive attitude (i.e. feeling of satisfaction based on past performance) towards the behaviour. A positive perception of being in control and skilful reinforces this link. In light of this, the following hypothesis is proposed:

*H<sub>1</sub>: Satisfaction will have a positive influence on Loyalty*

According to Beatty and Kahle (1988), despite the fact that very little attention has been paid to habit, the inclusion of the construct in an attitude-behaviour framework is called for, both theoretically and empirically. In their research, they have extended the Fishbein-Azjen's TRA model with habit as the ultimate endogenous construct [i.e. belief -> attitude -> intention -> behaviour -> habit (Beatty and Kahle 1988, p. 3)]. Asserting that "*behaviour precedes habit*" (p. 5), they define habit as:

*"[a] type of behaviour or action, although not reasoned action, [that] may nevertheless derive from an action that at one time was reasoned."* (p. 229)

In the internet purchase context, as customers are more at ease with a retailer's website and are more in control of the relevant process (navigating the website, receiving the products, customer services, etc.), this self-service participation and co-production is likely further to initiate consumers' habit

formation. In other words, when satisfaction leads to customers' continuation in buying from a website, there is likely to be an increase in habit formation.

In line with Beatty and Kahle (1998), this research conceptualises habit as the 'mindless mode' of loyalty in that the customer's action of buying is not deliberated upon by the customer at the time of the act. The purchasing action is more characterised by its automaticity due to repetitive and satisfactory purchasing performance in the past. This particular conceptualisation of habit is also akin to the concept of inertial loyalty or action loyalty as proposed by Oliver (1999, 1997) and as discussed in the previous chapter.

There is also substantial agreement in the literature that previous satisfying experience resulting from a particular behaviour will lead to the formation of habit. However, apart from the works of Limayem *et al.* (2003; 2007) in the field of IS and recent findings by Lankton *et al.* (2010), there are very few empirical studies to prove this. In light of this, the following hypothesis is proposed:

***H<sub>2</sub>: Satisfaction will have a positive influence on Habit***

Habit or the 'mindless mode' of loyalty, in this sense, is in contrast to loyalty, which is conceptualised in this research as the customer's more

'mindful mode' of loyalty. This is in similar vein to Oliver's conative loyalty. As discussed in the previous chapter, conative loyalty refers to the customer's behavioural intention to continue to purchase a brand in the future. When the customer is in the 'mindful' stage of loyalty, they are still consciously involved in deciding whether or not to purchase from the e-retailer when the need arises. They may also still be very aware of alternatives and competitors' messages as well as offerings. However, over time, as the purchases are repeated and as the result of the accumulation of favourable purchase experiences with the e-retailer and its websites, the action to purchase can become habitual. This argument is in line with Beatty and Kahle's (1998) 'behaviour -> habit' notion and Oliver's (1999, 1997) 'conative loyalty -> action or inertial loyalty' view. In light of this, the following hypothesis is proposed:

*H<sub>3</sub>: Loyalty will have a positive influence on Habit*

### **3.4 ALTERNATIVE ATTRACTIVENESS**

Consumer perception of the attractiveness of close alternatives has many consequences (Ping 1993). Customer consideration of alternatives is a key element in making choices about whether to stay or defect (Patterson and Smith 2003; Rust and Chung 2006). As the perceived attractiveness of alternatives increases, customers are more likely to be involved in solving

problems and less likely to remain loyal (Hirschman 1970; Ping 1993; Rusbult *et al.* 1982). In addition, the probability of switching increases (Bendapudi and Berry 1997; Jones *et al.* 2000; Sharma and Patterson 2000). As such, dissatisfied customers who are unaware of viable alternatives or perceive that they are not appealing or inviting are likely to remain loyal (Patterson and Smith 2003).

As discussed in the previous chapter, researchers from the social psychology arena have long recognised that presence of alternatives is a major threat to the stability of any relationship. Thibaut and Kelley (1959) suggest that individual A's dependence on individual B is affected by whether A perceives that the relationship outcome is valuable in relation to the outcomes that can be provided by alternative partners. Indeed, research into commitment has demonstrated that individuals who perceive that they have attractive alternatives reported less commitment to maintaining a relationship. Conversely, individuals who believe that they have less attractive alternatives are more likely to be committed (Johnson and Rusbult 1989). Thus, competitors or attractiveness of alternatives in the market will influence customer's loyalty negatively based on the cost-benefit ratios of the current retailer relative to its competitors (Rusbult *et al.* 1998).

Much empirical research has been undertaken to support these notions. Rusbult *et al.* (1982), for instance, observed that the perception of high quality alternatives positively influences exit and negatively influences loyalty. Similarly, Ping (1993), Jones *et al.* (2002) and Yim *et al.* (2007) have found the negative effect of alternative attractiveness on commitment and repurchase intention. In addition, the research of Chen and Hitt (2002) reveals that online consumer switching tendency can be driven by the perception of quality of available alternatives in the market. The results of Capraro *et al.* (2003) also lend support to the view that knowledge of alternatives has a direct and positive influence on defection. Thus, the following hypothesis is posited:

***H<sub>4</sub>:** Alternative Attractiveness will have a negative influence on Loyalty*

Verplanken *et al.* (1997), in their research into people's travel mode choice decision making, reported that when habit is strong, clients pay little attention to other modes of transportation. Roy *et al.* (1996) observed that when the consumer ignores the heterogeneity of alternative brands, a strong habit has been established. Another study has found that 'asymmetric information' about alternatives will lead to habit formation (Moshkin and Shachar 2002). Furthermore, consumers who have negative or indifferent perceptions of available alternatives may be experiencing status quo bias

(Samuelson and Zeckhauser 1988), which leads to habitual behaviour. Attitudes shape the individual's mind-set in terms of whether to like or dislike something (Armstrong and Kotler 2000), or to do something repetitively (the habitual behaviour in this case).

Lack of perceived alternative attractiveness (i.e. when consumers believe competitors' service and/or offerings are unattractive) raises the perceived value of continuing the relationship with the current e-retailer (Anderson and Narus 1990; Li, Browne and Chau 2006; Wilson 1995). In addition, without competitive alternatives, there is an enhanced possibility that customers will increase their investment in a current relationship out of lack of choice (Li, Browne and Chau 2006). Higher investment and experience with the current e-retailer's website will promote the formation of habit in terms of future purchasing from the e-retailer.

Therefore, based on the above, the following hypothesis is proposed:

*H<sub>5</sub>: Alternative Attractiveness will have a negative influence on Habit*

### **3.5 SWITCHING COSTS: DIRECT EFFECTS**

From the social exchange theory perspective, partners that have invested considerable effort, time and money in a relationship will be dependent on

that relationship (Rusbult *et al.* 1998). As such, the size of investment will induce partners to maintain a relationship. Size of investment as propounded by the social exchange perspective is analogous to termination costs, switching costs or sunk costs in commitment-trust theory (Morgan and Hunt 1994).

Scholars argues that switching costs positively influence loyalty and retention (Fornell 1992; Heskett 1990). There is also empirical evidence of the direct effect of switching costs on loyalty. For example, the work of Patterson and Smith (2003) found significant direct effects of switching costs on customers' propensity to remain with a firm across three offline services, namely; travel agency, medical service and hairdressing. Another study by Bell *et al.* (2005) also found a significant direct relationship between switching costs and consumer loyalty. In the online B2C relationships, switching costs have been reported to have a positive effect on e-loyalty. Customers who have expended a large amount of time, money and effort on a website will be psychologically dependent on that website (Johnson *et al.* 2003). The process of changing to alternatives will involve extra investment (or cognitive effort) in searching, evaluating and filtering information as well as in learning the interfaces of a new retailer's website. Since the outcomes of a new online purchase compared to one offline are relatively more uncertain, consumers tend to stay with the website they trust.



Many scholars agree that one potential but crucial antecedent to loyalty is switching cost (e.g., Fornell 1992; Kim and Toh 2006; Oliver 1999; Rust and Kannan 2003; Ruyter, Wetzels and Bloemer 1998). Based on this view, the next working hypothesis is:

*H<sub>6</sub>: Perceived Switching Costs will have a positive influence on Loyalty*

It is argued that in order to achieve higher efficiency and cognitive consistency, consumers will reduce their choices and engage in habitual behaviour. This provides the next working hypothesis:

*H<sub>7</sub>: Perceived Switching Costs will have a positive influence on Habit*

### **3.6 SWITCHING COSTS: MODERATING EFFECTS**

Some prior studies have regarded switching costs as a moderator in satisfaction and loyalty relationships (Yang and Peterson 2004), especially in traditional offline retailing. For instance, Lee *et al.* (2001) found a significant moderating effect of switching costs in the satisfaction and loyalty linkage in the mobile phone service. Hauser *et al.* (1994) reported that a strong level of perceived switching costs reduces the sensitivity of a customer to perceived satisfaction. Likewise, Anderson and Sullivan (1993) discovered a negative

relationship between switching costs and customer satisfaction sensitivity in the banking industry.

The examination of the moderating role of switching costs in the e-retailing environment, however, produces somewhat contradictory results. Scholars argue that this role may not always be significant and will depend on other variables such as types of business, customers or products (Nielson 1996). For example, Holloway (2003) conducted a study on online service failure recovery and found no moderating effect of switching costs on the satisfaction and repurchase intention linkage. Yang (2001) also reported that the interactions of switching costs with customer satisfaction have a negligible and negative effect on e-loyalty in e-financial investment and e-retailing groups respectively. In contrast, Balabanis (2006) found that switching costs will only moderate the e-satisfaction and e-loyalty links when e-satisfaction is higher than average. These findings contradict those in past studies (e.g., Chen and Hitt 2002).

Due to the mixed findings in prior research, the moderating role of switching costs warrants further investigation. Due to the expected high correlation between loyalty and habit, it may be assumed that switching costs play a similar role in the relationship between customer satisfaction and habit

as in the satisfaction and loyalty linkage. Therefore, the following hypotheses are proposed:

***H<sub>8</sub>:** Perceived Switching Costs will moderate the relationship between Satisfaction and Loyalty*

***H<sub>9</sub>:** Perceived Switching Costs will moderate the relationship between Satisfaction and Habit*

Attraction towards alternatives in the market will strongly and negatively influence the development of loyal customers. However, the prevalence of switching costs can serve as an insurance against the negative impact of high alternative attractiveness on loyalty. For example, a customer may feel that there is price unfairness if a competitor offers a lower price compared to their current e-retailer. The logical action of the customer is to end the current relationship and establish a new one with the competitor. This action, however, is not without any cost (Xia, Monroe and Cox 2004). If the customer decides to leave the relationship, they may incur switching costs that include time, effort and money. Thus, the costs of action (i.e. switching costs) moderate the relationship between alternative attractiveness and loyalty in that switching costs function as buffer against the negative effect of attractive alternatives on loyalty. Indeed, a major reason for constructing switching costs is to insulate customers from the competitive actions of competitors (Bendapudi and Berry 1997). To date, empirical evidence on this

effect has been negligible in the literature. Hence, the following hypotheses are proposed:

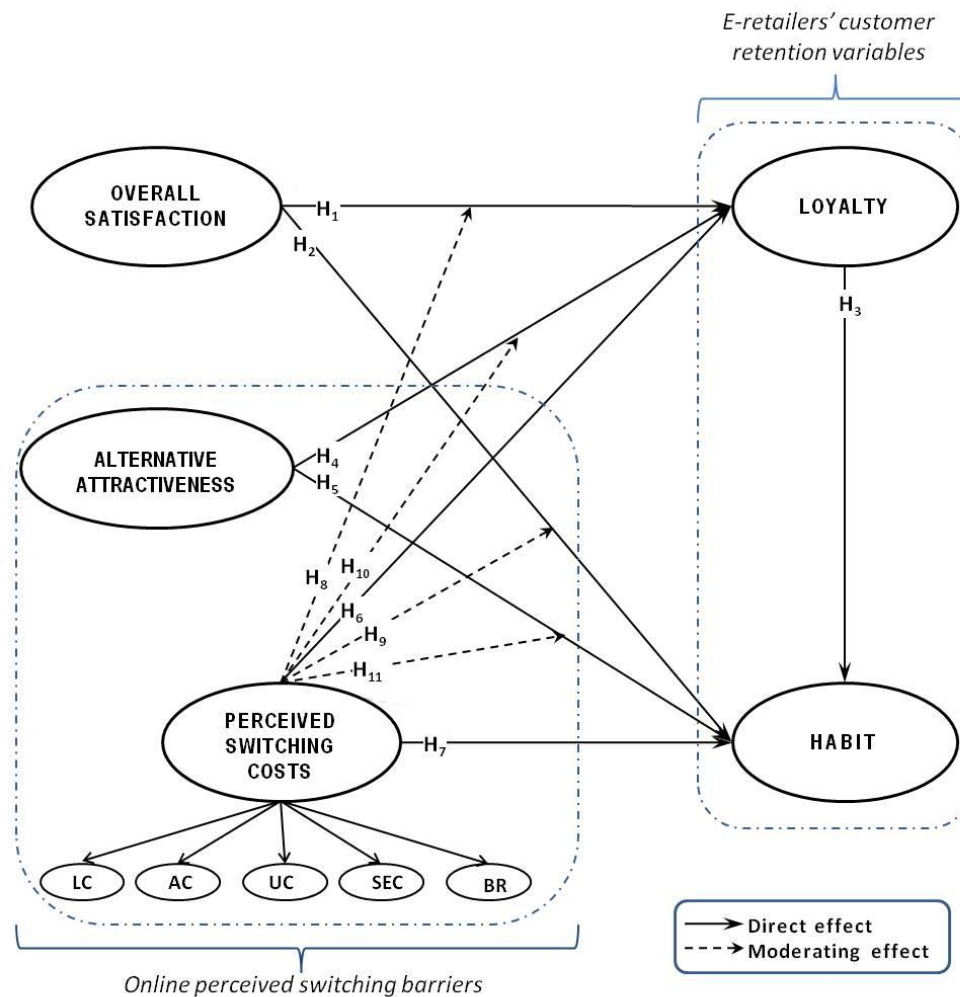
*H<sub>10</sub>: Perceived Switching Costs will moderate the relationship between Alternative Attractiveness and Loyalty*

*H<sub>11</sub>: Perceived Switching Costs will moderate the relationship between Alternative Attractiveness and Habit*

### **3.7 PROPOSED CONCEPTUAL FRAMEWORK**

The overall research model and proposed hypotheses as discussed above are as depicted in Figure 3-1.

The proposed model includes three exogenous variables – overall satisfaction, alternative attractiveness and perceived switching costs (consisting of five categories of cost as lower-order constructs), and two endogenous variables – loyalty and habit or habitual repurchase (as two key manifestations of customer retention in the online environment). The model also proposes that switching costs moderate the relative strength of customer satisfaction and customer retention relationship as well as alternative attractiveness and customer retention relationship.



**Note:** LC: Learning costs; AC: Artificial costs; UC: Uncertainty costs; SEC: Search and evaluation costs; BR: Brand relationship loss costs

**Figure 3-1: Conceptual Model: Satisfaction, Switching Barriers and Key Manifestations of Customer Retention**

### **3.8 SUMMARY**

Building on the research in the areas of social exchange and consumer behaviour, where customer retention is conceptualised as being brought about by the interplay between satisfaction, switching costs and alternative attractiveness, this chapter proposes a conceptual model. In the model, the switching costs construct is conceptualised as multidimensional, with habit persistence being the ultimate endogenous variable. Loyalty is considered in this research as the 'mindful mode' of staying with an e-retailer, whereas habit is conceptualised as or proposed to be a more 'mindless mode' of loyalty towards an e-retailer. This chapter also proposes five integral dimensions of switching costs relevant to the online retailing environment as well as 11 working hypotheses.

The next chapter proceeds with discussion of the research methodology employed in the study.

## **Chapter 4**

### **RESEARCH METHODOLOGY**

#### **4.1 INTRODUCTION**

Having reviewed the relevant literature related to consumer perceived switching barriers, consumer satisfaction, loyalty and habitual behaviour formation, the research gaps were highlighted in Chapter 2. Consequently, five sub-constructs were proposed for perceived switching costs as well as 11 hypotheses were formulated in Chapter 3 to address the research objectives. This chapter presents the methodology employed in the current study. The chapter begins with discussion of the philosophical debate underlying the choice of methodology and research design. The next section explains the data collection method and research samples. This is followed by a section which presents the measure development process. Issues concerning sample differences and non-response bias assessment are discussed next, followed by a brief discussion of the data analysis technique used. The final section consists of a summary of the whole chapter.

#### **4.2 RESEARCH PARADIGM POSITIONING**

Various different and competing philosophical assumptions exist in the area of social science. However, there are two dominant, principal schools of thought: positivism and interpretivism (Hudson and Ozanne 1988). Positivism

and interpretivism differ in their research perspectives and their views of ontology and, therefore, their epistemology. Also different are their research / methodological assumptions that determine the nature of research and the way it is conducted as well the role of the researcher in the scientific inquiry process. Historically, the approach utilised by marketing and consumer behaviour researchers was grounded in the positivist paradigm.

Philosophy of research is based on the concepts of ontology (the nature of reality), epistemology (the relationship between the researcher and the reality that is researched) and methodology (the process of understanding the perceived reality) (Carson, Gilmore, Perry and Gronhaug 2001). For instance, the philosophical stance of a marketing researcher who follows the positivist paradigm will be based on the ontology of the world that is external and objective. Therefore, in terms of epistemology, the researcher should observe or investigate reality independently, i.e. from a position that is free of judgement. Here, the research goal of a positivist will be, for instance, to study causal relationships between independent and dependent variables with methods used being driven by quantitative techniques.



**Table 4-1: Assumptions of the Positivist and Interpretivist Paradigm**

<i>Assumptions</i>	<i>Positivism</i>	<i>Interpretivism</i>
<b>Ontology</b>		
Nature of the world	Have direct access to the real world	No direct access to the real world
Reality	Single external reality	No single external reality
<b>Epistemology</b>		
'Grounds' of knowledge/relationship between reality and research	Possible to obtain hard, secure and objective knowledge  Research focuses on generalisation and abstraction  Thought governed by hypotheses and stated theories	Understood through 'perceived' knowledge  Research focuses on the specific and concrete  Seeks to understand the specific context
<b>Methodology</b>		
Focus of research	Concentrates on description and explanation	Concentrates on understanding and interpretation
Role of researcher	Detached, external observer  Clear distinction between reason and feeling Aims to discover external reality rather than the object of the study  Strives to use rational, consistent and logical approach Seeks to maintain a clear distinction between fact and value judgements Distinction between science and personal experience	Researchers want to experience what they are studying  Allow feeling and reason to govern actions Partially create what is being studied, the meaning of the phenomena Pre-understanding is important  The distinction between fact and value judgments is less clear Accept the influence from both science and personal experience
Techniques used by the researcher	Preference for statistical and mathematical methods but qualitative data may also be utilised	Primarily non-quantitative

**Source:** Adapted from Carson *et al.* (2001) and Levy (2003).

Within this continuum of positivistic and interpretivistic paradigms, this study identifies more with the positivistic approach in so far as it leans more towards a deductive and quantitative methodology, in line with the dominant trend in this area.

Having explained the philosophical approach utilised in the research, this section discusses the methods and approaches adopted with respect to measurement issues and questionnaire development. As the data for this study are collected via questionnaires, it is crucial that the instrument is able to gather reliable and valid information to test the relevant hypotheses and fulfil the research objectives.

#### **4.3 MEASUREMENT ISSUES AND INSTRUMENTATION**

Each construct in the model is conceptualised as latent and measured using multiple indicators. In SEM, it is important and desirable that each latent construct (i.e. variable that is not directly measured) be represented by a scale or several measurement variables<sup>5</sup> (MVs; i.e. variables that are directly measured) (MacCallum 1995, p. 18). The measurement variables or the scale will basically act as approximate measures or indicators for latent constructs. As such, the latent constructs are the effect of whatever their indicators have in common with each other. In SEM, it is problematic if any construct is

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<sup>5</sup> MVs are sometimes called observed variables, manifest variables or reference variables.

represented by a single indicator, as the estimates will be biased by the influence of measurement error.<sup>6</sup> As noted by MacCallum (1995, p. 18):

*“Without multiple indicators, we rely on single error-perturbed MVs to represent constructs of interest”.*

While having four or more indicators measuring a latent construct is enviable, according to Garson (2009), having three or two is common practice. Kenny (1998) suggests that two indicators are the minimum allowable in a SEM model. Kenny also has one rule of thumb with regards to the number of indicators: *“Two might be fine, three is better, four is best, and anything more is gravy”* (Kenny 1979, p. 143). Having multiple indicators also permits errors to be modelled. This increases the reliability, reduces measurement error and minimises the specificity related to each indicator when multiple indicators are turned into composites<sup>7</sup> (Churchill 1979). However, having a model with only two indicators may not only lead to unreliable error estimates<sup>8</sup>, but also results in a model that is under-identified or fails to converge (Garson 2009). On the other hand, according to Anderson and Gerbing (1988, p. 416), a model that contains a construct or constructs with only two indicators may need a relatively larger sample to derive a converged and proper solution in SEM.

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<sup>6</sup> Error typically consists of random and systematic error.

<sup>7</sup> ‘Composites’ is a term used in SEM and simply refers to arithmetic mean in which the total sum of the item values is divided by the number of items.

<sup>8</sup> For example, the Heywood cases.

A review of prior studies and literature on consumer switching behaviour in offline and online contexts as well as customer satisfaction, behavioural intentions, loyalty and habit formation provides the foundation for relevant scale item development. All scales used are made up of reflective items (Diamantopoulos and Siguaw 2000; Diamantopoulos and Winklhofer 2001). This is in accord with the main trend in this area, with covariance-based SEM, as opposed to variance-based SEM (e.g., Partial Least Squares), being used as the main methodology.

Some of the items are negatively worded as this has been argued to reduce the potential effects of response pattern biases (Hinkin 1995). However, as pointed out by Weems and Onwuegbuzie (2001, p. 174), *“using mixed stems (i.e., positively and negatively worded items) may reduce score reliability”* and unidimensionality (Herche and Engelland 1996). Despite this, utilisation of reverse-worded statements when using a multi-item scale is highly commended by measurement theorists to reduce systematic response bias (Baumgartner and Steenkamp 2001; Churchill 1979; Nunnally 1978). Later on, in the analysis stage of this research, these reverse-worded statements are re-coded to achieve consistency across the measurement scale.

As far as possible, the current study utilises similar scale format and anchors, which help respondents to complete a relatively long questionnaire more easily due to the requirement for less cognitive processing. For most of the construct measurement items, respondents were asked to indicate their level of agreement on a 7-point Likert-type scale (1 = strongly disagree, 7 = strongly agree). This allows greater discrimination as it provides greater scope for a range of responses (Wilson 2010). Details of the measurement items are provided in Subsection 4.3.2.

#### **4.3.1 Pilot Study**

Pre-testing a research instrument is vital to ensure the construction of a good questionnaire before the implementation of data collection (Churchill and Iacobucci 2005; Dillman 1991). A pre-test must be conducted to identify those questions that respondents have difficulty understanding or interpret differently from the researcher's original intention, such as misleading questions, unsuitable abbreviations, vague or double-barrelled questions (Dillman 2000).

In this research, pre-testing was conducted in two phases. The first pre-test was conducted for the purpose of face and content validation of the questions and measurement items. Many drafts of the questionnaire were reviewed by the researcher's two supervisors. In addition, the satisfaction and

loyalty items were also reviewed by experts in services marketing in the US; namely, Professor Raymond Fisk and Professor Richard P. Oliver.

15 colleagues on doctoral programmes at WBS (10 students), Aston Business School (2 students) and Nottingham University Business School (3 students) were invited to participate in the first phase pilot and interviews. The use of at least 10 individuals is consistent with the recommendation of Fink (1995). The decision to select doctoral students in the first wave of pre-testing was made on the basis that they can be considered as experts in their own right in different business and management areas (see Table 4-2). Personal interviews using the 'de-briefing' method were used, where the interviewees were *"asked to fill in the questionnaire completely while the interviewer makes careful observation"* (Hunt, Sparkman and Wilcox 1982, p. 270).

This was done to identify problematic questions that require further explanation, wording that was confusing or questions that were badly written (Krosnick 1999). Valuable feedback pertaining to item adequacy, wording ambiguity, question-item sequencing, scale formatting, and questionnaire length was provided. In addition, some suggestions were implemented in the main data collection, such as:

- Randomisation of questions/items to avoid response bias in the web-based survey
- Deletion of some redundant items
- Removal of a small number of ambiguous items
- Scale format
- Question sequencing and questionnaire length

**Table 4-2: Details of the Pre-test's Interview Participants**

<b>Participant's code</b>	<b>Details and Nature of Doctoral Study</b>	<b>Research Paradigm</b>
J. L.	3 <sup>rd</sup> year, Organisational Behaviour	Interpretivist
S. D.	3 <sup>rd</sup> year, Operational Research and Management Science	Positivist
J. L.	2 <sup>nd</sup> year, Industrial Relations and Organisational Behaviour	Mixed method
L. F. N.	2 <sup>nd</sup> year, Operational Research and Management Science	Positivist
R. R.	3 <sup>rd</sup> year, Operational Research and Management Science	Positivist
J. B.	2 <sup>nd</sup> year, Industrial Relations and Organisational Behaviour	Interpretivist
T. M.	2 <sup>nd</sup> year, Operational Research and Management Science	Positivist
K. K.	2 <sup>nd</sup> year, Finance	Econometrics
Y. W.	2 <sup>nd</sup> year, Finance	Econometrics
A. M.	2 <sup>nd</sup> year, Marketing (Nottingham University Business School)	Positivist
A. T.	2 <sup>nd</sup> year, Change Management (Aston Business School)	Mixed Method
M. M.	2 <sup>nd</sup> year, Management (Aston Business School)	Positivist
Z. Z.	3 <sup>rd</sup> year, Accounting (Nottingham University Business School)	Interpretivist
N. M.	3 <sup>rd</sup> year, Finance (Nottingham University Business School)	Econometrics

The second phase of the pre-test involved 51 undergraduates from the Warwick Business School. There has been considerable debate with regards

to the inclusion of student samples in social research. For example, while Schultz (1969) and Dill (1964) are somewhat against the inclusion of student samples, Oakes (1972) is in favour. The use of student samples always raises the issue of generalisability. However, with regards to internet research, the use of a student sample has been generally considered to be important, with a considerable body of past research in consumer behaviour and the internet having used students as their sample (e.g., Balabanis *et al.* 2006; Childers, Carr, Peck and Carson 2001; Menon and Kahn 2002; Senecal and Nantel 2004; Sweeney and Soutar 2001). Student samples have also contributed to the understanding of many virtual community studies.

To reiterate, in terms of research constructs, this research considers online customers' 1) retention with the e-retailer (i.e. loyalty stage progression towards habit or automaticity of repurchase); along with their perceptions of 2) satisfaction; 3) alternative attractiveness; and 4) switching costs. Multi-item scales were either modified and refined from past literature or constructed for this research, both with the help of the pre-test results and participants' opinions in the pre-test and interview phases. The adaptations, modifications and refinements of items taken from past literature (largely from the offline context) have been made to reflect the online retailing context of the present study. These measures are utilised to operationalise each construct as depicted in Figure 3-1 (p. 128). In addition, some items have



been removed based on the pre-test results. The following subsections discuss measure development of each construct used in the questionnaire. Table 4-3 below summarises this discussion and also presents the number of items retained from the pilot study. The scale used to measure each of the nine constructs and dimensions is described next.

### **4.3.2 Operationalisation of Research Constructs**

#### ***4.3.2.1 Online Perceived Switching Costs***

As detailed in Chapters 2 and 3, on the basis of the preceding theory (Burnham *et al.* 2003; Gremler 1995; Jones *et al.* 2002), this research conceptualises online perceived switching costs as a second-order reflective construct composed of five first-order dimensions. As described in Chapter 2, these costs include the investment of time, money or effort, as well as psychological costs, which are perceived by online customers as arising whenever they change e-retailers. The following subsections detail the measurement scale development for the dimensions of switching costs.

**Table 4-3: Constructs Used in this Research**

Construct			Description	No. of items	Items adapted or constructed based on:
Exogenous	Switching Costs	Learning Costs	Time and effort costs that arise in learning to understand or use a new e-retailer effectively	6	Jones <i>et al.</i> (2007); Burnham <i>et al.</i> (2003); Kim and Toh (2006); Mathwick (2002); Holloway (2003); Korgaonkar and Wolin (1999); Gremler (1995); Bourdeau (2005)
		Artificial Costs	Costs incurred due to special programmes, rewards. accumulated points benefit or discount because of specific e-retailer actions to retain customers	7	
		Uncertainty Costs	The cost (or risk) incurred because of possible reduction in service performance, unforeseen financial loss and/or waste of time or effort if a new retailer is used	6	
		Search and Evaluation Costs	Time and effort costs incurred in seeking information about acceptable alternatives and analysing their viability	5	
		Brand Relationship Loss Costs	Psychological or affective cost incurred from breaking bonds with current e-retailer's brand	3	
	Alternative Attractiveness		Customer's estimate of the satisfaction available in an alternative relationship	9	Jones (2000); Li <i>et al.</i> (2006); Burnham (1998); Holloway (2003); Rusbult (1980); Ping (1993)
	Overall Satisfaction		The customer's global affective evaluation of the e-retailer to date based on multiple transactions and experiences with the e-retailer	4	Seiders <i>et al.</i> (2007; 2005); Oliver (1997, 1999)
Endogenous	Loyalty		Customer's behavioural intention to re-patronise the e-retailer in the future, together with the feeling of commitment towards the e-retailer	5	Bourdeau (2005); Evanschitzky and Wunderlich (2006); Oliver (1997, 1999)
	Habit		The extent to which the customer undertakes repeat purchases automatically without much thought and deliberation with respect to selection of e-retailer, based on past experienced satisfaction and learning	3	Limayem <i>et al.</i> (2003, 2007)

#### 4.3.2.1.1 Learning Costs

To reiterate, learning costs are the expenditure of time and/or effort that the customer has to incur to achieve an equal level of comfort or ease with a new e-retailer compared to that enjoyed with the previous one. Review of the literature found no standard scale to measure customer perception of learning costs within the online retailing context. This is contributed to by the fact that, as mentioned previously, almost all past studies carried out on online switching costs employ a global or unidimensional scale to measure online switching costs.

Six items are used to measure such costs. Two items were adapted and modified based on measures developed by Jones *et al.* (2007) and Burnham *et al.* (2003) from the offline switching costs literature. Three items were modified from online consumer studies of Kim and Toh (2006), Mathwick (2002) and Holloway (2003), and one other was constructed for use in this study based on the literature review and responses to the pilot study. These measures capture cost in terms of time and effort involved in learning about a new online retailer if customers were to switch. The items fielded in for the pilot-test are presented in Table 4-4. The alpha ( $\alpha$ ) scores reported, given in the table below, are from the pre-test findings.

**Table 4-4: Items for Measuring Learning Costs**

Items	Sources
Switching means I need to learn new routines and way of doing things on a new website.	Jones <i>et al.</i> (2007)
Getting used to a new website after I switch would be very easy. (r)	Burnham <i>et al.</i> (2003)
Switching my shopping activities to another online retailer would require too much learning.	Kim and Toh (2006)
I feel that the competitors' websites are difficult to use.	Developed for this study
I am reluctant to change online retailer because I am familiar with 'how the system works' on this website.	Mathwick (2002)
It takes time/effort to understand how to use other online retailers' websites.	Holloway (2003); Kim and Toh (2006)

**Note:** r= reversely worded; Pre-test  $\alpha = 0.822$

#### 4.3.2.1.2 Artificial Costs

As mentioned, the artificial costs dimension of online switching costs refers to the costs that arise due to actions initiated by firms in order to retain customers and make it more costly to switch suppliers (Klemperer 1987). This cost is roughly equivalent to Burnham *et al.*'s (2003) 'financial dimension' and Jones *et al.*'s (2002) 'loss benefit cost' dimension. Artificial costs are operationalised using items adapted from three different research papers. Three were taken from Mathwick (2002) with minor modifications. Another four were adapted from Burnham (2003) and Jones (2002; 2007) with modifications to suit the context of this study. One item from Mathwick (2002) was removed during the pre-testing stage – “*I have contractual reasons for not switching from this online retailer*” - as it is not relevant to the

context of this study. A seven-item scale representing consumer online artificial costs is presented in Table 4-5.

**Table 4-5: Items for Measuring Artificial Costs**

Items	Sources
I hesitate to switch from this online retailer because it offers privileges I would not receive elsewhere.	Mathwick (2002)
I receive special rewards and discounts from doing business with this online retailer.	Mathwick (2002)
I will lose the benefits of being a long-term customer if I leave my online retailer.	Burnham <i>et al.</i> (2003)
Staying loyal gives me discounts and special deals.	Jones <i>et al.</i> (2007)
Staying loyal saves me money.	Jones <i>et al.</i> (2007)
Switching to another online retailer would probably involve hidden cost/charges.	Burnham <i>et al.</i> (2003)
There are several financial costs/charges I would incur if I were to stop doing business with this online retailer.	Mathwick (2002)

**Note:** Pre-test  $\alpha = 0.934$

#### 4.3.2.1.3 Uncertainty Costs

Uncertainty cost arises from the customer's perception of opportunity costs and risk associated with switching from an existing e-retailer to one that is unfamiliar or untested (Colgate and Lang 2001; Gultinan 1989; Klemperer 1995; Mitchell 1999). Consumers often face dilemmas in making choices because the result of their choice will only be known in the future. This construct is analogous to Burnham *et al.* (2003) 'risk costs'. However, Burnham *et al.* did not find support for this dimension in their cross-sectional study of switching behaviour amongst credit card and phone service providers. Six items adapted from various past offline and online studies were subjected to pre-test, and none were removed. However, minor modifications

in wording were made based on the post pre-test interview results. The six-item scale reflecting internet customer uncertainty about switching e-retailer is presented in Table 4-6.

**Table 4-6: Items for Measuring Uncertainty Costs**

Items	Sources
I am concerned about the security of my personal information when registering on a new website.	Korgaonkar and Wolin (1999)
I worry that switching my shopping activities to another online retailer would result in some unexpected problems.	Burnham et. al. (2003)
If I were to change online retailer, I fear that the service I would receive might worsened.	Mathwick (2002)
It would be inconvenient for me to switch to another online retailer.	Holloway (2003)
Switching to another online retailer would be risky, since I wouldn't know the quality of its products/services.	Gremler (1995)
I feel more comfortable shopping on this website than on their competitors' websites.	Burnham et. al. (2003)

**Note:** Pre-test  $\alpha = 0.727$

#### 4.3.2.1.4 Search and Evaluation Costs

Search and evaluation costs broadly refer to the degree of perceived inconvenience in seeking and evaluating a new, realistic, competing e-retailer prior to switching (Balabanis *et al.* 2006; Burnham *et al.* 2003; Jones *et al.* 2002). Similar to previous dimensions, the review of the literature did not uncover any standard scale to measure search and evaluation costs within the e-retailing context. As such, combinations of items from various articles were adapted and refined for the context of this study, and one item was specifically developed for use in the present study. One item from the original scale was removed based on the result of the pilot study – i.e. cross-loading.

The item was “*It is difficult to compare the other online retailers*” (Burnham *et al.* 2003). Table 4-7 shows the specific items proposed to represent the search and evaluation dimension of online switching costs.

**Table 4-7: Items for Measuring Search and Evaluation Costs**

Items	Sources
I don't like spending time searching for a new online retailer.	Gremler (1995)
If I wanted to change online retailer, I would not have to search very hard to find a new one. (r)	Jones <i>et al.</i> (2002)
I cannot afford the time/effort to evaluate alternative online retailers fully.	Burnham <i>et al.</i> (2003)
Comparing the competitors in order to work out which best suits my needs is a time-consuming task.	Burnham <i>et al.</i> (2003)
I don't think that the process of evaluating a new online retailer prior to switching would be a hassle. (r)	Developed for this research

**Note:** r= reversely worded; Pre-test  $\alpha = 0.795$

#### 4.3.2.1.5 Brand Relationship Loss Costs

Customers often extract certain meaning from their purchases and make associations with the brand of a product or company (Burnham *et al.* 2003). These associations partly form their sense of identity. In addition, it is suggested in the extant literature that customers often try to confine their choices to a limited number of brands in order to reduce the cognitive effort needed to make purchase decisions (Bourdeau 2005). According to Sheth and Parvatiyar (1995), customers develop relationships with retailers or the brand of service providers in much the same way as customers build relationships with branded tangible goods. The measurement items for the Brand Relationship Loss dimension is modified and adapted from Burnham (2003),

reflecting the psychological loss associated with breaking the bonds of identification developed with the e-retailer. One item is specifically constructed for use in this research. One item adapted from Balabanis et al. (2006) – “*I feel emotionally attached to this online retailer*” – was dropped due to low item-to-total correlation during the pre-test stage. Table 4-8 presents the proposed items.

**Table 4-8: Items for Measuring Brand Relationship Loss**

Items	Sources
The brand of this retailer plays a major role in my decision to stay.	Developed for this research
I do not care about the brand/company name of the online retailer that I use to buy this product. (r)	Burnham <i>et al.</i> (2003)
I stay because I like the public image of the retailer.	Burnham <i>et al.</i> (2003)

**Note:** r= reversely worded; Pre-test  $\alpha = 0.788$

#### **4.3.2.2 Alternative Attractiveness**

As previously discussed, alternative attractiveness reflects the extent to which the customer perceives that viable alternatives are available in the marketplace (Holloway 2003; Jones *et al.* 2000; Rusbult 1980). Items modified from Jones *et al.* (2000), Holloway (2003) and Li *et al.* (2006) tap the extent to which perceived satisfaction may be available with alternatives. Items adapted from Muncy (1996) and Burnham (1998) tap the extent to which customer perceived competing alternatives are differentiated or heterogeneous [parity (Balabanis *et al.* 2006)]. The factor analysis result of



the pre-test reveals three extracted factors with Cronbach's alpha scores of as presented in Table 4-9 below.

**Table 4-9: Items for Measuring Alternative Attractiveness**

	Items	Sources
Factor 1	I feel that an alternative online retailer is better than this one.	Holloway (2003)
	To my mind, another online retailer is closer to my ideal.	Li <i>et al.</i> (2006)
	The quality of offering varies greatly between competing websites.	Burnham (1998)
Factor 2	If I had to change online retailer, I know of another which is just as good.	Jones <i>et al.</i> (2000)
	Compared to this online retailer, there are not many competitors with whom I could be satisfied. (r)	Jones <i>et al.</i> (2000)
	My experience with the competitors is limited. (r)	Burnham (1998)
Factor 3	I would probably be just as happy with the service of another online retailer.	Holloway (2003)
	The only difference between the major online retailers of this type of product is price.	Muncy (1996)
	I could be buying from a competing website and not notice much difference. (r)	Burnham (1998)

**Note:** r= reversely worded; Pre-test  $\alpha$  = 0.785; 0.585; 0.655

#### **4.3.2.3 Overall Satisfaction**

As opposed to early views of customer satisfaction which consider it as transaction-specific cognitive evaluation, this research follows the recent conceptualisation of satisfaction, seen as a customer-affective evaluation of overall consumption experience with the e-retailer (Anderson *et al.* 1994; Harris and Goode 2004; Oliver 1999; Seiders *et al.* 2007). Past studies argue that the incidence of just one unsatisfying experience is unlikely to result in switching behaviour; likewise, a single satisfying event is not sufficient to

influence long-term loyalty (e.g., Bourdeau 2005; Fornell, Johnson, Anderson, Cha and Bryant 1996).

To operationalise overall satisfaction, three items are adapted from Seiders *et al.* (2005), which have been modified from Voss, Parasuraman and Grewal (1998). One item is adapted from Bourdeau (2005) which he developed to measure Oliver's (1999) affective loyalty concept. This scale is consistent with the literature that views satisfaction as an affective assessment of consumption experience. In addition, this scale also compatible with affective loyalty phase (Oliver 1999) which refers to "*a person's global affect evaluation or feeling state*" (Evanschitzky and Wunderlich 2006, p. 336).

**Table 4-10: Items for Measuring Overall Satisfaction**

Items	Sources
I am pleased with the overall service.	Seiders <i>et al.</i> (2007; 2005)
Shopping here is a delightful experience.	
Overall, I am completely satisfied with my shopping experience.	
When I think about my shopping experience here, I am generally pleased.	Bourdeau (2005)

**Note:** Pre-test  $\alpha = 0.846$

#### **4.3.2.4 Loyalty**

Loyalty is measured via a scale that manifests deeply-held motivations to purchase with the e-retailer. This motivation to repurchase is developed from

*“repeated positive cognitive and affective experiences”* (Bourdeau 2005, p. 19) with the e-retailer. The items were developed by Bourdeau (2005) based on the limited number of potential measures proposed by Oliver (1997) to measure conative loyalty or behavioural intention to repurchase. Table 4-11 presents the proposed items.

**Table 4-11: Items for Measuring Loyalty**

Items	Sources
When I have a need for this type of product, I will use only this online retailer.	Bourdeau (2005)
I would not even consider another online retailer for this product.	
I will continue to do business with this online retailer even if its prices increase somewhat.	
I am not loyal to this online retailer. (r)	
I am unlikely to switch to another online retailer in the near future.	

**Note:** r= reversely worded; Pre-test  $\alpha = 0.786$

#### **4.3.2.5 Habit**

Most researchers (e.g., Liao *et al.* 2006) have measured habit behaviour via frequencies of prior behaviour (Verplanken and Orbell 2003). However, as discussed previously, frequently repeated behaviour is not a sufficient condition for habit formation. According to Verplanken (2006), habit is a psychological construct, not simply behavioural frequency, and as such, must be measured as a psychological construct. He also argues that items measuring this construct should include features that define characteristics of habit actions such as automaticity in performing the behaviour. There have been other attempts in the past to assess habit directly by asking respondents

to indicate whether the action is performed either: 1) ‘by force of habit’ (Wittenbraker, Gibbs and Kahle 1983); 2) ‘as a matter of habit’ (Orbell, Blair, Sherlock and Conner 2001); or 3) ‘without awareness’ (Mittal 1988). In this research, habit forms one part of customer retention manifestation and is operationalised based on Ajzen’s (2002) views of routinisation of behaviour. According to Ajzen, consistent to his theory of planned behaviour, *“attitudes and intentions—once formed and well-established—are assumed to be activated automatically and to guide [behaviour] without the necessity of conscious supervision”* (p. 108). This operationalisation is also highly consistent with Oliver’s (1999, 1997) conceptualisation of ‘inertial rebuying’, characterising the action phase of his sequential four-stage loyalty theory. The scale to measure habit in this study was modified from the work of Limayem, Hirt and Cheung (2003, 2007) from the information systems literature (see Table 4-12).

**Table 4-12: Items for Measuring Habit**

Items	Sources
When I need this type of product, using this website is an obvious choice for me.	Limayem, Hirt and Cheung (2003, 2007)
I remain a customer of this website out of habit.	
When I need this type of product, visiting this website has become automatic.	

**Note:** Pre-test  $\alpha = 0.815$

The questionnaire also contained typical questions relating to respondents’ demographic information - gender, age, educational

qualifications and income – which will be used to describe the sample. In addition to demographic information, an assessment of the respondents' general level shopping experience with their chosen online retailer were deemed necessary as well given the context of the study. These questions focused on respondents' retailer purchase history, volume, frequency and value of purchasing. The questionnaire is as presented in the Appendix. Next section discusses the methods and approaches adopted with respect to data collection.

#### **4.4 DATA COLLECTION AND RESEARCH SAMPLE**

##### **4.4.1 Survey Method**

In order to investigate customer perception of online switching barriers towards the e-retailer, a survey was carried out to solicit information relating to online customers; attitudes, intentions and behaviour related to their experience as patrons of retailer websites. This approach is consistent with the positivistic-oriented view as the dominant paradigm employed in this area. The survey approach refers to the drawing of a sample of respondents from a population for examination, from which inferences are made about the population (Collis and Hussey 2003, p. 66). The relatively mature level of research in this area within the consumer behaviour field justifies the utilisation of the survey approach.

The advantages of utilising questionnaires have been highlighted in methodology literature. For example, compared to the interview approach, administering a survey not only is less costly, but also allows greater coverage geographically in reaching target respondents. Therefore, a conventional mail survey as well as an electronic survey were considered fully appropriate for this research, as explained in detail in Section 4.4.4 below. The next subsection describes the selection of the survey samples.

#### **4.4.2 Determination of Sample Size**

A relatively large sample size is needed for three reasons: first, due to the quantitative nature of this study; second, to ensure that the issue of cross-validation is addressed, that is, the ability of the measurement instrument to be replicated across independent samples drawn from the same population (Byrne 2010); third, because of the need to test the interaction issues in the framework (there are four moderating effects to be tested simultaneously with other hypotheses in the proposed model).

This research used Structural Equation Modelling (SEM) as the main tool in data analysis. Because SEM is concerned with tests that rely on sample size, consideration of sample sizes is extremely important. In determining adequate sample size, several guidelines exist in the literature.

According to Garson (2009), sample size should be generally between 200 to 400 cases for SEM models with 10 to 15 indicators. Loehlin (2004) and Hoyle (1995) recommend a sample size of at least 100 to 200 observations, while Kline (2005, p. 12) asserts that a sample size of less than 100 is not plausible to test SEM models. Furthermore, Kline (2005) noted that model complexity must also be taken into consideration when determining appropriate sample size. Schumacker and Lomax (2004, p. 49) inspected the SEM literature and found that sample sizes of around 250 to 500 were used in studies. They concluded that sample size consisting of fewer than 150 cases would fall below the minimum (Garson 2009).

Kline (2010, p. 11) noted that *“If the cases/parameter ratio is less than 5:1, the statistical precision of the results may be doubtful”*. Therefore, for this research, a sample size of around 480 to 500 was considered reasonable (i.e. about 5 cases per parameter) as there were 48 proposed indicators for the structural equation model (see Table 4-3) with each indicator typically having at least two parameters to be estimated. In addition, the complexity of the model resulting from product term calculation and orthogonalisation procedures in testing moderating effects suggested that such a sample size would be appropriate. As a precaution, on the assumption that the response rate for the mail surveys was *“typically less than 15 per cent”* (Malhotra 2003, p. 183), 4000 questionnaires were sent out with the expectation of receiving

approximately 500 usable responses. The response rate for this research is discussed in the next chapter of this thesis.

#### **4.4.3 Sample Selection and Study Context**

In order to investigate the impact of online switching barriers on online consumer loyalty, it is important that those solicited as the subjects of the research are individuals who have made purchases with an online retailer. In addition, this research is concerned with customer relationship with B2C<sup>9</sup> retailers operating exclusively on the internet. As discussed before, there is evidence of differences between consumer retention and loyalty towards online firms with offline presence (bricks-and-click) and retention and loyalty displayed towards online firms without offline presence (pure-play) (Chen 2003; Holloway 2003). As such, in this study, those respondents selecting an online retailer with a physical store operation are excluded from further analysis. More detail is provided in Chapter 5.

This study examines customers of a range of pure 'dot com' retailers that offer various types of products and services to customers via their websites. In the questionnaire, respondents were required to evaluate one e-retailer from whom they most frequently purchased. This method of soliciting respondents to report their experience with providers has been widely

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<sup>9</sup> Business to Consumer.



accepted in prior research in marketing and information systems (Balabanis *et al.* 2006; Ganesh *et al.* 2000; Gefen 2003; Holloway 2003; Keaveney and Parthasarathy 2001; Li, Browne and Chau 2006; Mano and Oliver 1993). For example, Balabanis *et al.* (2006) asked respondents to select one e-retailer they frequently used and to answer the remaining questions with that particular e-retailer in mind. A similar approach was adopted by Holloway (2003) in her study of online service failure. In their study on customers' experiences with banks, Ganesh *et al.* (2000) asked their respondents to identify their main banking provider if they used multiple banks. The rationale behind this approach was "*to increase the variance to be explained in the dependent variable*" (Li, Browne and Wetherbe 2006, p. 434). As in the above-cited study, in the present research, the respondents were expected to report with reference to an e-retailer they have purchased from frequently in order to effectively explore the impact of e-switching barriers on loyalty and habit. Another rationale for such a procedure is to increase the generalisability of the findings by testing the research framework with consumers across a variety of e-retailers, rather than with one single retailer (Li, Browne and Wetherbe 2006).

As a guideline, the sample must be composed of individuals who are internet shoppers of pure online retailers in the UK. As a consequence, between October and November 2008, a large number of marketing research

agencies in the UK were contacted and invited to provide a representative sampling frame of UK internet shoppers. Most sampling frame quotations offered were based on: 1) Random mailing lists, i.e. lists of emails or lists of names and addresses; or 2) Collection of data on behalf of the researcher through phone interviews, questionnaire mailings or mall intercepts. The second type of sampling frame quotation does not allow the researcher to have access to the respondents' names or contact details. The cheapest of these options is the email mailing list (0.5p per email), which the researcher may use for online survey administration and with a promised impression rate of 15 per cent. However, impression rate does not guarantee response rate. Due to the risk involved, it was strongly felt that the use of email lists was not feasible. Instead, the researcher decided to purchase a list of names and addresses, which, although considerably more costly, would afford the researcher greater control over the data collection process.

Experian UK<sup>10</sup> was selected to provide a sample of UK consumers for this research because of the company's reputation as one of the most

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<sup>10</sup> Experian UK was not the only marketing research company which the researcher had approached. Several other companies within the Midlands were also contacted from whom quotations were received such as Echo Management Ltd, Emailmovers Ltd, TMN Media, Phruit Ltd, SurveyShack.com Ltd and 20/20 Research. However, due to budget constraints, Experian UK was selected on the basis of its credibility and the cost (i.e. at the cost of 15p per mailing list).

credible marketing intelligence companies in the UK<sup>11</sup> (Shao 2009; Xiang and Gretzel 2010). Furthermore, according to an Experian officer, UK consumers' names and addresses were frequently updated with a recency value of approximately 0-24 months.

Though the main focus of this research was on the attitude and perception of consumers towards pure-play internet retailers, it was not possible to instruct the Experian system to select only those respondents that had transacted with pure-play internet retailers. In addition, the more criteria specified upon the sample, the more expensive the list would become. One way to overcome this problem was to provide an instruction to the respondent in the questionnaire to select only pure-play internet retailers. However, the pre-test revealed that to instruct respondents to do so might lead to confusion for the respondents. In light of this, the next closest criteria for the sample should be based on those conducting transactions with UK online retailers in general.

A sample of 4000 respondents was drawn and purchased from Experian from its pre-existing database of online shoppers<sup>12</sup> in the UK. The researcher instructed the system to limit the sample to online shoppers over

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<sup>11</sup> For instance, the credibility of Experian's Hitwise UK report has been acknowledged by recent studies (e.g. Shao, 2009; Xiang and Gretzel, 2010).

<sup>12</sup> A total of 29.3 million internet shoppers in the UK were identified by the system.

the age of 16<sup>13</sup> who had transacted at least once in the previous six months. The random selection of this sample was generated automatically by the computerised online system. The cost per name and address was £0.13 for one-time use<sup>14</sup> of the names and addresses.

#### 4.4.4 Data Collection Technique

The collection of data involved a self-administered online and paper-based questionnaire. Due the fact that the population of interest consisted strictly of internet users and purchasers, a mixed-mode or hybrid survey approach (web with mail design) was used (Dillman, Phelps, *et al.* 2009; Dillman, Smyth and Christian 2009; Parackal 2003).

All potential respondents were contacted via post with a packet envelope containing a paper questionnaire, a personalised cover letter and postage paid returned envelope (see Appendix pp. 362-372). They were given the choice to complete via either online questionnaire or paper questionnaire. The URL address<sup>15</sup> for the online version of the questionnaire (hosted via surveymk.com) was highlighted in bold and with a much larger font typescript on the cover page of the questionnaire booklet and in the cover/invitation letter.

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<sup>13</sup> The Office for National Statistics UK categorised adults as being from the age of 16 years.

<sup>14</sup> Due to the budget constraints of this study, the researcher could only afford to purchase a mailing list for single use; i.e. no follow-ups or pre-notification letters were possible.

<sup>15</sup> The URL for the online questionnaire was: **<http://www.surveymk.com/warwick>**

Although the internet is a relatively new mode of collecting data, it undeniably has merits in the data collection process. Web-based surveys provide good quality data (Gosling, Vazire, Srivastava and John 2004; Manfreda and Vehovar 2008), faster response time (Griffis, Goldsby and Cooper 2003; Sheehan and McMillan 1999), cheaper and more efficient data collection (Chisnall 2007; McDonald and Adam 2003) and also provide greater convenience for both researcher and respondents (Stanton 1998; Taylor 2000). Furthermore, web-based surveys are perceived as more salient, exciting and entertaining than traditional surveys by respondents who are experienced in using the internet (Evans and Mathur 2005), as in this case, where all the respondents were online shoppers.

However, according to many authors in the field of survey methodologies, the greatest threat to internet survey is coverage error. In this research, as previously mentioned, respondents were contacted through the post, where they were given the choice to answer either the online or paper-based questionnaire; as such, coverage error was not a concern.

In the online version of the questionnaire, the sequence of items measuring each latent variable was randomised (i.e. the order of items may not have been the same for every respondent) by taking advantage of the automatic randomised capability of the online survey software package. This

is in accordance with the suggestion of Bowker and Dillman (2000) that randomising items or questions in a research instrument may significantly increase the researcher's ability to control error by minimising the bias impact of question sequencing (Tingling, Parent and Wade 2003). In addition, specifically related to common method bias, Chang *et al.* (2010, p. 180) states that:

*“counterbalancing the order of questions relating to different scales and constructs makes CMV [common method variance] less likely, as the respondent cannot then easily combine related items to cognitively ‘create’ the correlation needed to produce a CMV-biased pattern of responses”.*

However, past literature in the area of survey methodology has noted that response rates to all modes of survey research have been declining over the years (de Leeuw, Hox and Dillman 2008; Dillman, Smyth, *et al.* 2009). Moreover, as mentioned previously, the mailing list that was purchased for this study was only for single use. As such, pre-notification letters, reminders and follow-up letters to non-responders were not possible. In view of these limitations, several strategies consistent with the practice in the social sciences were adopted to increase the response rate and encourage participation (de Leeuw *et al.* 2008; Malhotra 2003):

- If they preferred to administer the questionnaire using the paper-based version, a postage paid return pre-addressed envelope was provided; i.e. no stamp was required.
- Amazon gift vouchers worth £10 were offered to six lucky respondents. For every completed questionnaire that was returned, 0.50p was donated to a children's charity<sup>16</sup>.
- The packet envelope had the University of Warwick's logo printed on it to create a positive image and to increase the attractiveness of the overall mailed-out package.
- The cover letter was personalised with each respondents' name. In addition, each letter was finished with a hand-written signature before being printed on official Warwick Business School letter headed paper. The researcher's contact information (address, email address and telephone number) was also provided. Such inclusions evoke trust in the legitimacy and importance of the study (de Leeuw and Hox 2008, p. 246).
- The paper-based questionnaire was designed in a neat, A5 booklet format, so that it looked small and less demanding. It also had a title and was decorated with the ghosted logo of the Warwick Business School (de Leeuw and Hox 2008).

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<sup>16</sup> Gulson (Children) Hospital, Coventry

- Demographic profile and sensitive questions such as income and ethnicity were placed at the very end of the questionnaire, including 'I prefer not to disclose' as one of the answer options.
- In the online questionnaire, a graphic progress indicator was utilised to show the respondent how close they were to completion as well as to give a sense of orientation of the questionnaire completing process (following the recommendation of Manfreda and Vehovar 2008, p. 279).
- All of the survey material design was pretested<sup>17</sup> before the mailings. Care was taken, especially in the cover letter, to ensure both that the words were understood and that the letter created a positive image.

As mentioned, to increase convenience, the respondents were given a choice as to whether to respond via the paper-based questionnaire (mail-back) or via the web-based questionnaire. Most literature on hybrid survey methods reported a reduction in non-response error (de Leeuw and Hox 2008). Furthermore, the mail-with-web approach may increase the respondents' perceived saliency of the survey.

The survey packets were posted on the 18<sup>th</sup> March 2009.

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<sup>17</sup> The complete survey packet was shown to colleagues and the administrative staff in the Doctoral and MSM group offices. Several modifications were made based on their input.



## **4.5 ANALYSIS AND INTERPRETATION OF DATA**

This section describes the tools used in the data analysis. The study utilises two main statistical software packages: SPSS 18 and AMOS 18. Following the collection of the sample, the next stage of the research is the procedure of measurement refinement and purification. It is important that items that performed poorly in terms of item-to-total correlations are investigated and if necessary, discarded. Item/s that violate/s predicted factor structures should also be eliminated.

### **4.5.1 Measurement Model Validation: Exploratory Factor Analysis (EFA)**

Following the two-step procedure of Anderson and Gerbing (1988), the researcher first investigates whether the items correspond to the predicted structures, based on past literature, by conducting exploratory factor analysis (EFA) via SPSS 18. This is done to identify initial evidence of unidimensionality and discriminant validity (Farrell 2010, p. 326; Gerbing and Anderson 1988) prior to a more confirmatory assessment. According to Gerbing and Anderson (1988), item-total correlations as well as EFA procedure should be performed prior to CFA as preliminary analyses for scale development. Then CFA should be employed to further purify and refine the scales.

#### 4.5.2 Measurement Model Validation: Confirmatory Factor Analysis (CFA)

The second step is adoption of the CFA approach via AMOS 18. CFA is synonymously referred to as a 'measurement model' because it focuses exclusively on the links between latent constructs and their respective individual items within a much larger structural equation framework (Byrne 2010). Following this, assessments of scale validation are discussed.

In this study, in order to ensure the validity of scales used, content validity and construct validity are examined (Malhotra 2003; Zikmund 2003). Content validity, sometimes referred to as face validity, ensures that the items representing a construct actually tap the concept "*on its face*" (Rubio, Berg-Weger, Tebb, Lee and Rauch 2003, p. 94). This involves the researcher and another group of individuals assessing whether the items are adequate to measure the respective latent construct (Malhotra 2003). This procedure is conducted prior to data collection, as explained in Section 4.3.1 above.

Construct validity refers to the extent to which the measured items/indicators (or the operational scale), correctly represent and measure the theoretical latent constructs, that they are designed to measure (Bagozzi, Youjae and Phillips 1991; Hair, Black, Babin and Anderson 2010). A valid construct refers to "*the usefulness of the construct as a tool for describing or explaining some aspect of nature, such as a particular behaviour*" (Peter 1981,

p. 134). Hence, in this case, construct validity implies the accuracy of the set of items in measuring the latent construct it is supposed to represent.

Several criteria must be fulfilled for the achievement of construct validity as advocated by Steenkamp and van Trijp (1991, p. 283); namely, 1) unidimensionality; 2) reliability; 3) convergent validity; 4) discriminant validity and; 5) nomological validity.

CFA is employed to assess these criteria on a scale initially developed by EFA (Steenkamp and van Trijp 1991). Gerbing and Anderson revised the widely known method of measurement development advanced by Churchill (1979), with the integration of CFA not only to assess scale unidimensionality, but also to determine validity of construct.

#### **4.5.2.1 Unidimensionality**

According to Hair *et al.* (2010, p. 696), a measure is one-dimensional when the *“set of measured variables (indicators) can be explained only by one underlying construct.”* In other words, a one-dimensional measure refers to the extent to which items represent only one fundamental latent construct. In the present research, this is achieved by assessing the overall CFA model fit (Garver and Mentzer 1999). If the model is not well-fitting, modification indices and the matrix of standardised residuals are inspected for any

substantial cross-loadings and/or error covariances. The model may be re-specified if notable problems are found (Anderson and Gerbing 1982; Anderson, Gerbing and Hunter 1987; Gerbing and Anderson 1988). On condition that the measurement model demonstrates unidimensionality, then scale reliability can be assessed.

#### **4.5.2.2 Scale Reliability**

Reliability of a scale refers to the degree to which the scale is consistent in measuring a latent construct. A reliable set of items will be capable of measuring a unidimensional latent construct, in that those items will statistically be able to vary simultaneously (Churchill and Peter 1984). In addition, if several measurements are taken, the reliable items will all produce consistent statistical values (Hair *et al.* 2010).

In this study, several diagnostic measures are utilised. First are the item-to-total correlations and the inter-item correlation, with the general acceptable value exceeding 0.5 for item-to-total correlations and around 0.3 for inter-item correlation coefficients (Hair *et al.* 2010, p. 125; Robinson, Shaver and Wrightsman 1991, p. 5). These measures relate to each item instead of the whole scale (Hair *et al.* 2010). The second diagnostic tool is the coefficient alpha or Cronbach's (1951) alpha score. This measure relates to the measurement consistency of the whole scale. This is the most popular and

reported estimation of reliability. Although Nunnally suggests a minimum value of 0.7, a lower limit of 0.6 is considered minimal for exploratory research (Hair *et al.* 2010; Nunnally and Bernstein 1994, p. 265; Robinson *et al.* 1991, pp. 12-13). The third method in assessing construct reliability is the Raykov's (1997) Rho composite reliability estimate. As a guideline, the composite reliability estimate of a construct should be at least 0.6, as suggested by Bagozzi and Yi (1988). There is considerable debate in the literature with regards to the tendency for the Cronbach's alpha score to underestimate reliability. Consequently, in this thesis, the final judgment as to whether to drop or retain a construct is based on its composite reliability estimate. Another diagnostic tool used in this thesis pertaining to the reliability assessment of a construct is measurement of the construct's average variance extracted (AVE). An AVE estimate, like a composite reliability estimate, is derived from the CFA results. The composite reliability and AVE are calculated using the formula presented in Table 4-13, taken from the seminal paper of Fornell and Larcker (1981).

**Table 4-13: Description and Threshold Values of Reliability Diagnostic Measures**

Reliability Measures	Cut-off Criteria
1. $\text{Composite Reliability} = \frac{(\sum \lambda_i)^2}{(\sum \lambda_i)^2 + \sum \theta_i}$ Where: $\lambda_i$ = the factor loadings $\theta_i$ = the error variance associated with each indicator	<b>&gt;0.60</b>
2. $\text{Average variance extracted (AVE)} = \frac{\sum \lambda_i^2}{\sum \lambda_i^2 + \sum \theta_i}$ Where: $\lambda_i$ = the factor loadings $\theta_i$ = the error variance associated with each indicator	<b>&gt;0.50</b>

**Note:** The cut-off guide is suggested by Bagozzi and Yi (1988).

#### 4.5.2.3 Convergent Validity

Convergent validity implies that the items (indicators) measuring a theoretical construct must share a high proportion of variance or must converge (Hair *et al.* 2010). In other words, the items should possess high 'communality' with each other. The study evaluates convergent validity by examining the magnitude and significance (critical ratio or t-value higher than |1.96|) of the standardised parameter estimates of the items (Hair *et al.* 2010). Past SEM theorists suggest that convergent validity is evident if all observed variables of a construct have statistically significant factor loadings (Anderson and Gerbing 1988, p. 416; Bagozzi *et al.* 1991, p. 434). However, as significant factor loadings may not guarantee a substantial magnitude of parameter estimates, guidelines for that are also mentioned in the literature, as summarised in

Table 4-14. On the basis of those guidelines, in this study, it is concluded that the minimum strength of 0.4 for the factor loading of each item is needed as evidence of the convergent validity of a construct.

**Table 4-14: Several Cut-off Criteria of Parameter Estimate Indicating Convergent Validity**

Strength of Standardised Coefficient Estimate	Source
$\geq 0.40$	Ding, Velicer and Harlow (1995, p. 126); Velicer, Peacock and Jackson (1982, p. 375)
$\geq 0.50$	Bagozzi and Yi (1988, p. 82); Hildebrandt (1987, p. 28)
$\geq 0.60$	Chin (1998a, p. 13)
$\geq 0.70$	Garver and Mentzer (1999, p. 45)

Convergent validity could also be assessed by examining the composite reliability and average variance extracted (AVE) of a construct (Fornell and Larcker 1981), described in Section 4.5.2.2 above and the following section respectively.

#### **4.5.2.4 Discriminant Validity**

Discriminant validity refers to the extent to which a construct is “*truly distinct from other constructs*” (Hair *et al.* 2010, p. 710). A distinctive construct is novel and tests some phenomena that other measures do not (Churchill 1979). First, the correlation parameters between CFA models of every pair of constructs will be *constrained* to unity (1), and then the chi-square different test will be performed on the constrained and unconstrained models (Anderson and Gerbing 1988; Jöreskog 1971). If the difference in the chi-

square value between the constrained and unconstrained models is *not* significant, then “....*those latent variables are not perfectly correlated and ... discriminant validity is achieved*” (Bagozzi and Fornell 1982, p. 476). Second, Fornell and Larcker (1981) suggest that for a construct that is discriminately valid, its average variance extracted (AVE) must be greater than the variance<sup>18</sup> between the construct and other constructs in the model. In other words, internal consistency is required to be superior to external consistency.

In summary, this research evaluates discriminant validity by assessing whether the measurement model satisfies two conditions: (1) the variance extracted of each construct is greater than the squared correlation between every pair of constructs; and (2) for each pair of factors, the value of  $\chi^2$  for the measurement model in which their correlation has been constrained to 1 is significantly higher than the value of the  $\chi^2$  of the second model, in which such a constraint is not imposed (e.g., Seiders *et al.* 2007).

#### **4.5.2.5 Nomological Validity**

This refers to the extent to which a scale makes predictions of other concepts or correlates with other constructs in the model in accordance with theory. In this thesis, the evidence of nomological validity is supported if the correlations among the latent constructs make sense (Hair *et al.* 2010, p. 691)

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<sup>18</sup> Variance is the squared correlation between the two constructs.



and are “theoretically sound” (Ping 2004, p. 131). In this research, the test of the structural model is regarded as the confirmatory assessment of nomological validity (Anderson and Gerbing 1988, p. 411; Steenkamp and van Trijp 1991, p. 295).

#### **4.5.3 Hypotheses Testing**

The hypotheses are tested following the assessment of psychometric properties of the measurement scale. Structural equation modelling is used for this purpose using AMOS software (Arbuckle 2006).

#### **4.5.4 Estimation Method**

Maximum Likelihood Estimation (ML) is used for confirmatory factor analysis and SEM because it is reasonably robust in “less-than-optimal analytic conditions” (Bollen 1989; Chou, Bentler and Satorra 1991; Hoyle and Panter 1995, p. 163). In addition, a recent Monte Carlo simulation experiment by Reinartz, Haenlein and Henseler (2009) shows that:

*“... ML-based CBSEM proves extremely robust with respect to violations of its underlying distributional assumptions. The distribution of indicators impacts neither the share of proper solutions for ML-based CBSEM nor parameter accuracy in any significant and substantial manner, even in extreme cases of skewness or kurtosis.” (p. 341)*

Compared to the first generation of multivariate methods, SEM approaches are relatively robust and comprehensive for parameter estimation and hypotheses testing, whether the proposed model is made of direct or indirect paths such as mediating or interaction effects. Furthermore, with the advancement of statistical software, SEM has become the standard approach in the area of marketing and consumer behaviour research. Compared to the more traditional estimation methods such as regression analysis and ANOVA, in which only one relationship can be estimated at any one time, SEM allows simultaneous estimation of relationships between variables. In SEM, any dependent construct can also be an independent construct in other relationship/s. In addition, multiple mediators and moderators can be estimated together. Furthermore, SEM takes into account the measurement errors of constructs, making the estimation and prediction more accurate. The score of an item is mainly composed of three properties; namely, the actual score of the item, random error and systematic error (Churchill and Iacobucci 2005). Compared to SEM, *“first-generation techniques are, strictly speaking, only applicable when there is neither a systematic nor a random error component—a rare situation in reality”* (Haenlein and Kaplan 2004, p. 284).

#### 4.5.5 Moderating Effects: Orthogonalisation Approach

There are several interaction effects hypothesised in the model as discussed in Chapter 3. Interaction effect in a model is generated by a construct whose variation leads to changes in strength or direction of a relationship between an independent and dependent variable (Baron and Kenny 1986). Interaction effects are *important* when the research interest is to determine whether the linkage between predictor and outcome variables is stronger or weaker for some groups of people than for others (Frazier, Tix and Barron 2004). The author agrees with the claims (e.g., Aguinis, Boik and Pierce 2001; Judd, McClelland and Culhane 1995) that identification of important moderators of relations between variables is evidence of maturity and sophistication of that area of research.

Most past studies in customer switching behaviour that examine moderating effect have applied a dummy-variable regression method (hierarchical multiple regression analysis) created via median or quartile splits of the data (Cheung and Lee 2005). However, this approach *“focuses on the extremes rather than the entire spectrum of possible values causing a loss of information concerning the independent variables”* (Falk, Hammerschmidt and Schepers 2010, p. 289). For this reason, a more robust approach involving non-linear SEM is adopted in this research.

In SEM, interaction effects are modelled as separate latent constructs from their respective main effects, hence benefitting from the reduction of measurement errors. This increase in reliability of measures in SEM allows for greater statistical power to detect effects. There are growing numbers of studies on ways in which interaction effects (also known as moderating effects) can be modelled within the context of SEM (e.g., Jaccard and Wan 1995; Jöreskog and Yang 1996; Li *et al.* 1998; Mathieu, Tannenbaum and Salas 1992; Ping 1996). Most approaches in testing the moderating effect of metric constructs are based on the product indicator procedure initiated by Kenny and Judd (1984) and Busemeyer and Jones (1983). This particular issue is mainly concerned with how the multiplicative effect should be incorporated into the SEM model. However, these approaches are quite complex and sophisticated (especially Jaccard and Wan 1995; Jöreskog and Yang 1996). Multicollinearity remains a major concern (even after mean-centring), rendering moderated models that are unstable. Such instability causes “*bouncing beta*” (Little, Card, Bovaird, Preacher and Crandall 2007, p. 218) or biased estimates (Little *et al.* 2006; Marsh *et al.* 2007; Pedhazur 1982) and/or identification problems (Cortina, Chen and Dunlap 2001).

The latest methodological advancement pertaining to moderated SEM is postulated by Little, Bovaird and Widaman (2006). Expanding on the work of Lance (1988), Little *et al.* (2006) recommend using the residual centring

technique (or the orthogonalisation approach) when computing the multiplicative product term. This adaptation of the product indicator approach serves to completely eliminate the multicollinearity problem and ensures full independence between the constructs and the product created from them (Little *et al.* 2007; Marsh *et al.* 2007). Furthermore, as argued by Little *et al.* (2006), the orthogonalisation approach both uses all the possible information of the observed variables, and produces stable models without the need to recalculate parameter estimates.

A recent Monte Carlo study undertaken by Henseler and Chin (2010) has compared and contrasted the different approaches to dealing with interaction effects by means of SEM. Although the experiments were primarily based on variance-based SEM, they remain relevant to covariance-based SEM. The paper concludes that amongst different methods of modelling interaction effects, the orthogonalising approach is the most recommended for the majority of situations due to its prediction and parameter estimation accuracy as well as its statistical power. This approach is also most suited for SEM models with fewer indicators per construct and/or in studies with small sample size (Henseler and Chin 2010, p. 82).

In this study, it is hypothesised that the higher-order construct of online perceived switching costs will moderate several relationships in the

structural model (Figure 3-1, p. 128). In testing these moderating effects, this study follows strictly the procedure outlined by Little *et al.* (2006, pp. 504-505). Almost all prior empirical research examining the interaction effects of the switching cost construct has utilised the dummy-variable regression methodology. The literature review confirms that this is the only study in which the orthogonalisation procedure has been adopted. Detailed explanation of the procedure can also be found in Little *et al.* (2007) and Henseler and Chin (2010).

#### **4.6 SUMMARY**

The aim of this chapter has been to describe in detail the research design and the quantitative-based empirical methodological approach employed in the study. This chapter also describes in detail how the measures were developed. In addition, the approaches as suggested by Churchill (1979), Anderson and Gerbing (1988) and Gerbing and Anderson (1988) will be followed in the measurement purification and validation stages. Construct validity has been described as assess via the procedures outlined by Fornell and Larcker (1981). This includes the examination of path loadings, their respective critical ratio values and the examination of the average variance extracted of each construct (Anderson and Gerbing, 1998; Bagozzi and Yi, 1998). Discriminant validity between constructs has been established by

comparing the intercorrelation between the constructs with the average variance extracted (Fornell and Larcker 1981). In addition, the latest orthogonalisation procedure in testing interaction effects in structural models, as proposed by Little *et al.* (2006), is utilised. The next chapter presents the descriptive analysis findings of the research.

## **Chapter 5**

### **DATA ANALYSIS I – DESCRIPTION OF SAMPLE**

#### **5.1 INTRODUCTION**

The previous chapter has rigorously discussed the methodology used in the research. In this chapter, the descriptive analysis of the sample is presented. Chatfield (1985) argued that preliminary examination of research data is highly important for any statistical analysis, not only to enable the researcher to see the whole picture, but also to facilitate model development in the later and more advanced stage of the analysis process.

The chapter begins with assessment of the response rate. The demographic profile of the responses received is presented next. More specifically, the respondents' profile in terms of their demographics and e-retailer is compared to the published statistics of internet purchasers in the UK. This comparison is made to investigate the presence of non-response bias and to examine whether the sample is representative of the population (adult internet purchasers in the UK). After this, respondents' purchase experience with their chosen e-retailer is presented and discussed.



## 5.2 RESPONSE RATE

Out of the 4,000 questionnaire packets mailed, 163 were returned as 'undelivered' for reasons such as 'addressee has gone away' or 'wrong address'<sup>19</sup>, leaving 3,837 potential respondents. After a month of data collection, a total of 799 responses were received. Out of that, 578 came through the post (i.e. were paper-based), while the rest (221) were delivered online, yielding a response rate of 20.8 per cent. According to Bansal and Taylor (2005), a response rate of at least 10 per cent is typical of a mail survey (see Table 5-1).

As the mailing list purchased was for single use only, it was not possible to send a reminder letter or postcard to the respondents. Many authors asserted that follow-ups are crucial to increase response rate (de Leeuw *et al.* 2008; Dillman 2000; Malhotra 2003; Zikmund 2003). However, due to financial limitations, this was not possible. To reiterate, the main focus of the current research is to study perceived switching barriers of customers towards pure online firms (that is, online retailers without any offline presence).

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<sup>19</sup> Remarks written by RoyalMail staff on returned survey packets. Compensation for these unused addresses was given by Experian UK to the researcher.

Out of the 799 completed questionnaires received, 143 consumers responded to the website referring to companies that have strong presence offline as well<sup>20</sup>. As expected, examination of the independent T-test result shows that to a certain extent, the two samples (respondents who chose pure-players vs. those who selected bricks-and-click) are not homogenous enough to be considered as one. As such, these responses were eliminated from further analysis.

Table 5-1: Response Rate

	<i>Survey Mode</i>		<i>Total</i>
	<i>Paper-based (post)</i>	<i>Online-based</i>	
<b>Number distributed (a)</b>	4,000		
<b>Undelivered (b)</b>	163		
<b>(a) – (b)</b>	3,837		
<b>Returned</b>	799		
<b>Overall response rate</b>	20.8 per cent		
<b>Usable</b>	411	179	590
<b>Non-usable</b>	167	42	209
<b>Total</b>	578	221	799
<b>Usable response rate</b>	15.4 per cent		

Due to their being unusable, a further 66 responses were removed. Among the 66, six responses were rejected because the products they

<sup>20</sup> The top ten bricks-and-click retailers selected by the respondents (these respondents were removed) in descending order were Tesco (n=37), Next (n=10), Argos (n=8), John Lewis (n=8), Marks and Spencer (n=8), Ocado (n=7), Sainsbury (n=7), Boden (n=6), HMV (n=5), Chain Reaction Cycles (n=4), Dabs (n=4), Daxon (n=4), Homebase (n=4) and J Crew Marshall Ward (n=4).

claimed to have bought were not sold by the online retailer chosen by them<sup>21</sup>. Seventeen others were removed because they had selected E-Bay<sup>22</sup>. Five other respondents had chosen a portal instead of an e-retailer and so were also rejected. Another 38 respondents were deleted as more than 10 per cent missing values were found in their questionnaires.

Therefore, 590 responses were used in the next analysis, yielding a *usable* response rate of approximately 15.4 per cent (see Table 5-1).

The data were also examined for any errors in coding or entry. Whenever any errors were found, the respective variables were re-coded or re-entered. The same procedure also applied to reverse-coded indicators.

### 5.3 NON-RESPONSE BIAS ASSESSMENT

*“Non-response error occurs when some of the sampled units do not respond and when these units differ from those who do not and in a way relevant to the study”* (de Leeuw et al. 2008, p. 7)

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<sup>21</sup> For example, two respondents claimed that they had bought travel tickets from Amazon.co.uk and one claimed to have purchased a pharmaceutical item from an online musical instrument retailer.

<sup>22</sup> It had been clearly instructed on the first page of the questionnaire to choose any online retailer they frequented most *except* E-Bay. In this study, E-Bay is not considered a pure-play operator *“because it combines acting as a retailer of second-hand goods and also as an agent for retailers selling new products”* (Mintel-Oxygen 2007) Furthermore, E-bay is an auction website.

The researcher must make certain that those who did respond are similar in characteristics and representative of the non-respondents (Zikmund 2003, p. 178). In other words, the researcher must assess whether the answers from survey respondents do not differ significantly from those of non-respondents (Armstrong and Overton 1977, p. 396; Sheehan 2001)<sup>23</sup>. Literature in this area has highlighted three ways of estimating non-response bias, namely: (1) comparison with known values of the population; (2) subjective estimates and; (3) extrapolation (Armstrong and Overton 1977).

In this study, the *comparison method* is used to check for non-response bias, following Armstrong and Overton (1977, p. 396-397). The comparison between the demographic characteristics of the sample and the profile of the general internet shopper in the UK from previous published statistics is reported in the next subsection.

### **5.3.1 Comparability of Sample with 'Known' Values of Population**

The data gathered include information on the sample's demographic profile. Data on demographics are important to provide a clear and complete picture of the characteristics of the sample. According to Lohr (2008, p. 105), one may compare estimates of demographic characteristics to the general population

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<sup>23</sup> If they defer, the estimation result may be biased to the characteristics of the population.

to assess the quality of the sample in terms of both non-coverage<sup>24</sup> and non-response. Table 5-2 provides the summary of the sample demographics. To examine the representativeness issue, comparisons are drawn with published statistics from the government, prominent marketing research and competitive intelligence agencies in the UK.

Comparing the demographics of the sample with the demographic of the target population is one way to examine biases in the response pattern (Zikmund, p. 178), i.e., to inspect whether there are any under-represented segments in the population. To reiterate, the target sample population from which the researcher wishes to draw inferences is the adult internet shopper in the UK.

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<sup>24</sup> Coverage refers to the percentage of the population of interest that is included in the sampling frame. In this study, the mailing list purchased from Experian UK is the sampling frame.

**Table 5-2: Comparative Demographic Profile of Research Respondents (N=590)**

<i>Demographic Profile</i>	<i>Category</i>	<i>Frequency</i>	<i>Per cent</i>	<i>Ranking in this study</i>	<i>Ranking &amp; percentage from Published Statistics<sup>a</sup></i>
Personal Income per annum:	<b>Less than £15,000</b>	90	15.3	<b>3</b>	<b>3 (12%)</b>
	<b>£15,000 - £19,999</b>	52	8.8	<b>6</b>	<b>6 (10.9%)</b>
	<b>£20,000 - £24,999</b>	53	9	<b>4&amp;5</b>	<b>4 (11.4%)</b>
	<b>£25,000 - £29,999</b>	53	9	<b>4&amp;5</b>	<b>5 (11%)</b>
	<b>£30,000 - £49,999</b>	146	24.7	<b>2</b>	<b>1 (28.5%)</b>
	<b>£50,000 - £75,000</b>	172	29.2	<b>1</b>	<b>2 (21.7%)</b>
	Total	566	96		
	Not Disclosed/Refused	4			
Age:	Missing Value	20			
	<b>16 – 24</b>	52	8.8	<b>5</b>	<b>3</b>
	<b>25 – 34</b>	174	29.5	<b>1&amp;2</b>	<b>1&amp;2</b>
	<b>35 – 44</b>	175	29.6	<b>1&amp;2</b>	<b>1&amp;2</b>
	<b>45 – 54</b>	99	16.8	<b>3</b>	<b>4</b>
	<b>55 – 64</b>	60	10.2	<b>4</b>	<b>5</b>
	<b>65 and over</b>	30	5.1	<b>6</b>	<b>6</b>
	Total	590	100		
Sex:	<b>Male</b>	317	53.7	<b>1</b>	<b>1</b>
	<b>Female</b>	270	45.8	<b>2</b>	<b>2</b>
	Total	587	99.5		
	Missing Value	3			
Race:	<b>White</b>	436	73.9	<b>1</b>	<b>1</b>
	<b>Black</b>	21	3.6	<b>3</b>	<b>3</b>
	<b>Mixed</b>	11	1.9	<b>4</b>	<b>4</b>
	<b>Asian</b>	102	17.3	<b>2</b>	<b>2</b>
	<b>Middle Eastern</b>	8	1.4	<b>5</b>	<b>5&amp;6</b>
	<b>Other</b>	3	0.5	<b>6</b>	<b>5&amp;6</b>
	Total	581	98.5		
	Not Disclosed/Refused	3			
	Missing Value	6			

<sup>a</sup> Published Statistics:

- ✓ Personal Income ranking was adapted from *the table: Internet usage by income* in the 2009 Marketing Pocket Book (Nielson-Online 2009, p. 238).
- ✓ Age and Sex rankings were adapted from *Figure 6* of the Mintel-Oxygen (2007) report.
- ✓ Race ranking was adapted from the British Population Survey, January 2008 (BPS 2010).

The classification of income was adopted from the Office of National Statistics, United Kingdom. Referring to Table 5-2, the breakdown of sample demographic characteristics is consistent with published statistics. On average, most respondents are quite independent financially and fall within the average income-earner range. Approximately one-third (29 per cent) of the respondents earn £50,000 and above per annum, followed by £30,000 - £49,999 (24.7 per cent) and those earning less than £15,000 (15.3 per cent). In terms of age, the majority of respondents are between 25 and 44 years. The overwhelming majority are White (73.9 per cent), with different minorities making up another 26 per cent. In terms of gender, the proportion of male respondents is marginally higher than female.

These findings are also very consistent with past published internet shopper profiles in the UK. This proves that the sample is in general, representative of the population; hence, although the response rate is not that high (20.8 per cent), non-response error or bias is not a concern (Lohr 2008).

### **5.3.2 Comparison with Top-Seven Pure-Players in the UK**

Comparison was also made with a recent study into e-retailing in the UK by Experian-Hitwise (2009), who focused on the famous seven pure-players in the UK. Table 5-3 provides the summary of online retailers chosen by the

respondents in descending order. The findings show that the three most dominant UK pure-players in descending order are Amazon UK, Play.com and Amazon.com, a finding that accords with published statistics. Again, it can safely be concluded that the study sample is representative of internet shoppers in general in the UK and that the problem of non-response bias is not a concern.

**Table 5-3: 2009 Top Seven Pure-play Online Retailers in the UK Vs Top Seven in this Study**

<i>UK 2009<sup>a</sup> Top Seven</i>		<i>Current Study's Top-seven</i>		
<i>Pure-Play Online Retailers</i>		<i>Web Address</i>	<i>Product Description</i>	<i>Freq. (%)</i>
Amazon UK	Amazon UK	www.amazon.co.uk	Books, CDs, consumer electronics etc.	385 (65)
Play.com	Play.com	www.play.com	Computers, consumer electronics, apparel etc.	42 (7.1)
Amazon US	Amazon US	www.amazon.com	Books, CDs, consumer electronics etc.	40 (6.8)
ASOS	ASOS	www.asos.co.uk	Apparel	15 (2.5)
Easyjet	Ebuyer	www.ebuyer.com	Computers, consumer electronics etc.	6 (0.8)
Expedia	Ryanair	www.ryanair.com	Cheap flights	5 (0.8)
Ryanair	Expedia	www.expedia.co.uk	Holiday products	3 (0.5)

Source: <sup>a</sup> Adapted from Experian-Hitwise (2009) <sup>25</sup>

<sup>25</sup> Experian-Hitwise (2009) categorises easyjet.com as a pure-play online retailer. Therefore, the researcher has included those respondents who have chosen easyjet.com, ryanair.com and expedia.co.uk in the questionnaire since the three companies have a somewhat similar business model where business transactions are mainly carried out on their websites.



#### 5.4 RESPONDENTS' PURCHASE EXPERIENCE

This section highlights the respondents' past purchasing experience with their chosen e-retailer. Again, frequency of distribution is used for this purpose. Referring to Table 5-4, the respondents are generally experienced purchasers of their chosen retailer's site. More than half of the respondents started purchasing from their online retailer more than three years ago. Most visit / browse their online retailer's website at least once every two months, with one third of the respondents doing so at least twice a month.

With respect to the frequency of purchase from their retailer's website, more than half of the respondents purchase at least once every three months with a number of purchases being made at least 3 to 5 times a year. In terms of money spent on their retailer's website, 66 per cent of the respondents claim that they spend around £10 to £40 per transaction.

The main product purchased most frequently from the online retailer chosen by the respondents is as described in Table 5-5. The majority of them have selected books and CDs/DVDs. Other principal products purchased come under the categories of clothing, electrical and computers. The vast majority (70.5 per cent) of the respondents have purchased more than one type of product from the online retailer (Table 5-6), with over half having bought three or more different types.

**Table 5-4: Experience with the Online Retailer (N=590)**

<i>Details</i>	<i>Category</i>	<i>Frequency</i>	<i>Per cent*</i>
First began purchasing with the e-retailer:	Within the last month	13	2.2
	Within the last 3 months	19	3.2
	Within the last 6 months	41	6.9
	Within the last year	42	7.1
	Within the last 2 years	73	12.4
	Within the last 3 years	99	16.8
	More than 3 years ago	303	51.4
Frequency of visit to e-retailer:	More than once a week	81	13.7
	About once a week	109	18.5
	About once or twice a month	225	38.1
	About once every 2 months	79	13.4
	About once a quarter (every 3 months)	56	9.5
	About 1 – 3 times per year	40	6.8
Frequency of purchase from e-retailer:	More than once a week	3	0.5
	About once a week	10	1.7
	About twice a month	63	10.7
	About once every 2 months	180	30.5
	About once a quarter (every 3 months)	197	33.4
	About 1 – 3 times per year	137	23.2
Total number of <i>times</i> purchased in the past 1 year:	1 – 2 times	101	17.1
	3 – 5 times	237	40.2
	6 – 15 times	192	32.5
	16 – 25 times	38	6.4
	More than 25 times	22	3.7
Approximate expenditure per transaction:	Less than £10	33	5.6
	£10-£15	112	19.0
	£16-£25	145	24.6
	£26-£40	132	22.4
	£41-£70	84	14.2
	£71-£100	37	6.3
	£101-£500	43	7.3
	More than £500	4	0.7

\* Percentage based on 590 respondents

**Table 5-5: Main Product Purchased from the Online Retailer**

<i>Product</i>	<i>Frequency</i>	<i>Per cent</i>
Books	292	49.5
CDs / DVDs	110	18.6
Clothes / Shoes / Accessories	37	6.3
Electrical Goods	28	4.7
Travel Tickets	27	4.6
Computers / Computer Equipment	23	3.9
Computer Games	17	2.9
Toys	11	1.9
Flowers / Greetings / Gifts	5	.8
Music Downloads	4	.7
Software	3	.5
Sports Equipment	3	.5
Health Products	3	.5
Others	27	4.6
Total	590	100

**Table 5-6: Number of Products Purchased from the Online Retailer**

<i>No of products purchased</i>	<i>Frequency</i>	<i>Per cent</i>
1	173	29.3
2	93	15.8
3	92	15.6
4	81	13.7
5	56	9.5
6	34	5.8
7	31	5.3
8	15	2.5
9	7	1.2
10	2	0.3
11	1	0.2
12	4	0.7
13	1	0.2
Total	590	100.0

Table 5-7, in contrast, details the *other* types of product sought by the respondents from their online retailer. The findings reveal that books and CDs are the most popular products bought on the internet, which is in accordance with the findings of the Economist (2000). This is due, firstly, to those products being low-touch, where little examination of the product is required before purchase; and secondly, to Amazon UK being chosen by the majority of respondents in the questionnaire (Table 5-3).

**Table 5-7: Other Products Purchased from the Online Retailer**

<i>Products</i>	<i>% of 'Yes'</i>
CDs/ DVDs/ Record	41.5
Books	33.9
Electrical Goods	28.5
Computers/ Computers Equipment	23.4
Computer Games	19.8
Toys	11.2
Clothes/ Shoes/ Accessories	11.0
Software	10.8
Travel Related Products (tickets/ holidays/ accommodation)	8.2
Office Supplies	6.3
Sport Equipment	5.1
Music Downloads	4.2
Mobile Phones	3.9
Beauty Products	3.7
Events (concert/ theatre/ festival) and Cinema Tickets	3.6
Home Furnishings	3.2
Garden Products/ Tools	1.7
Gadgets	1.9
Flowers/ Greetings / Gifts	1.9
Others	4.3

**Note:** The percentages do not add up to 100 per cent because multiple choices were allowed.

## 5.5 DATA SCREENING PRIOR TO MODEL ESTIMATION AND TESTING

### 5.5.1 Outliers

The data were inspected for any extreme values that may distort influences. A few univariate outliers were found but they were tolerable, and as such, were retained for further analysis. In terms of multivariate outliers, diagnosis was conducted by inspecting the Mahalabonis  $D^2$  measure from the AMOS programme printed output (Byrne 2010; Tabachnick and Fidell 2007; West, Finch and Curran 1995). The inspection reveals 15 observations that differ markedly from the general run of observations. Although a researcher may choose to discard these outliers, it was suggested by Hair *et al.* (2010, p. 67) that they should remain in the data unless there is strong evidence that they are not representative of any element or segment in the population. Moreover, the presence of a small number of outliers is not a concern within a large sample size (Kline 2005). As such, in the present analysis, the decision was made to retain these outliers. This is also in agreement with Hair *et al.* (2010, p. 67), who state that:

*“As outliers are deleted, the researcher runs the risk of improving the multivariate analysis but limiting generalisability.”*

### 5.5.2 Missing Data

Missing data always pose a problem in testing SEM models in general because the sample size is reduced to a certain extent from the original number, depending on which approach is taken to resolve the issue. Inspection of all continuous (Likert-type scale) observed variables reveal only 7 missing values requiring treatment<sup>26</sup>. Given that the extent of this problem is small and therefore unable to influence the result, any of the approaches to rectify the problem can be safely applied (Hair *et al.* 2010, p. 47). Rectification in the present study is achieved via mean substitution, the details of which are provided in the methodology chapter.

### 5.5.3 Normality

It is always important to consider the distributional properties of data prior to estimation of any SEM model. According to some SEM theorists, severely non-normal data will render the chi-square ( $\chi^2$ ) statistic unstable, especially when the sample size is small. However, when the sample size becomes larger (i.e. more than 200), the  $\chi^2$  statistics are unreliable (more detail on this is in section 6.2.1). That having been noted, the maximum likelihood (ML) estimator used in the present analysis remains relatively robust to violations

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<sup>26</sup> Note also that, as mentioned on p. 182, 38 respondents were removed earlier due to their questionnaires containing more than 10 per cent missing values.

of normality assumptions (Diamantopoulos and Siguaw 2000), provided that the sample is larger than 100 (Anderson and Gerbing 1988; Steenkamp and van Trijp 1991, p. 285). Recent Monté-Carlo experiments by Reinartz, Haenlein and Henseler (2009) involving samples of various sizes, kurtosis levels and skewness levels, have found no major difference in terms of SEM analysis results utilising ML estimator. The findings also concur with past studies including that of Sharma, Durvasula and Dillon (1989).

Despite these considerations, tests for normality were still conducted by the researcher using SPSS and AMOS. Visual inspections of the normality plots (Hair *et al.* 2010) found most values to fall along the diagonal lines, representing only mild deviation from normal distribution. In addition, inspection of measures related to univariate skewness and kurtosis printed by the AMOS programme found no indication of substantial non-normality, where, according to West, Finch and Curran (1995, p. 74), values equal to or greater than |2| and |7| are indicative of skewness and kurtosis respectively (see also Byrne 2010, p. 103).

However, the examination of multivariate normality via the AMOS programme does reveal evidence of multivariate non-normality, although not profound. The researcher feels that this is not a cause for concern because, as already mentioned, the ML technique is robust against several forms of

violation of normality assumptions that are not severe (Bollen 1989; Reinartz *et al.* 2009). Moreover, as stated by Hair *et al.* (2010), a large sample size, as in the case of this study, tends to lead to a tapering off of the problem of multivariate non-normality. Indeed, studies in the area of social sciences have acknowledged that *“virtually no variable follows the normal distribution”* (Barnes, Cudeck, Cote and Malthouse 2001, p. 79) and the vast majority of social science data tend to be non-normal anyway (Bentler and Chou 1987). In addition, data obtained from the Likert-type scale are usually *“skewed toward one end of the scale, uniform or even bimodal”* (Barnes *et al.* 2001, p. 81). Moreover, transforming data for non-normality correction may lead to other serious problems such as alteration in the meaning of the actual responses and misleading interpretation of the result because the interpretation has to be made using the transformed metric (Kline 2005, p. 51). Of course, severely non-normal data would require an alternative approach.

## 5.6 SUMMARY

The results show that the demographics profile of the sample is consistent with the general population of UK internet shoppers. It was found that the dominant pure-play companies in the UK are Amazon.co.uk, Play.com and Amazon.com, a finding which also concurs with the official published statistics



in the UK. The chapter has also detailed the treatment of outliers and missing data. The next chapter will discuss measurement model assessment.

## **Chapter 6**

### **DATA ANALYSIS II: ASSESSMENT OF THE MEASUREMENT MODEL**

#### **6.1 INTRODUCTION**

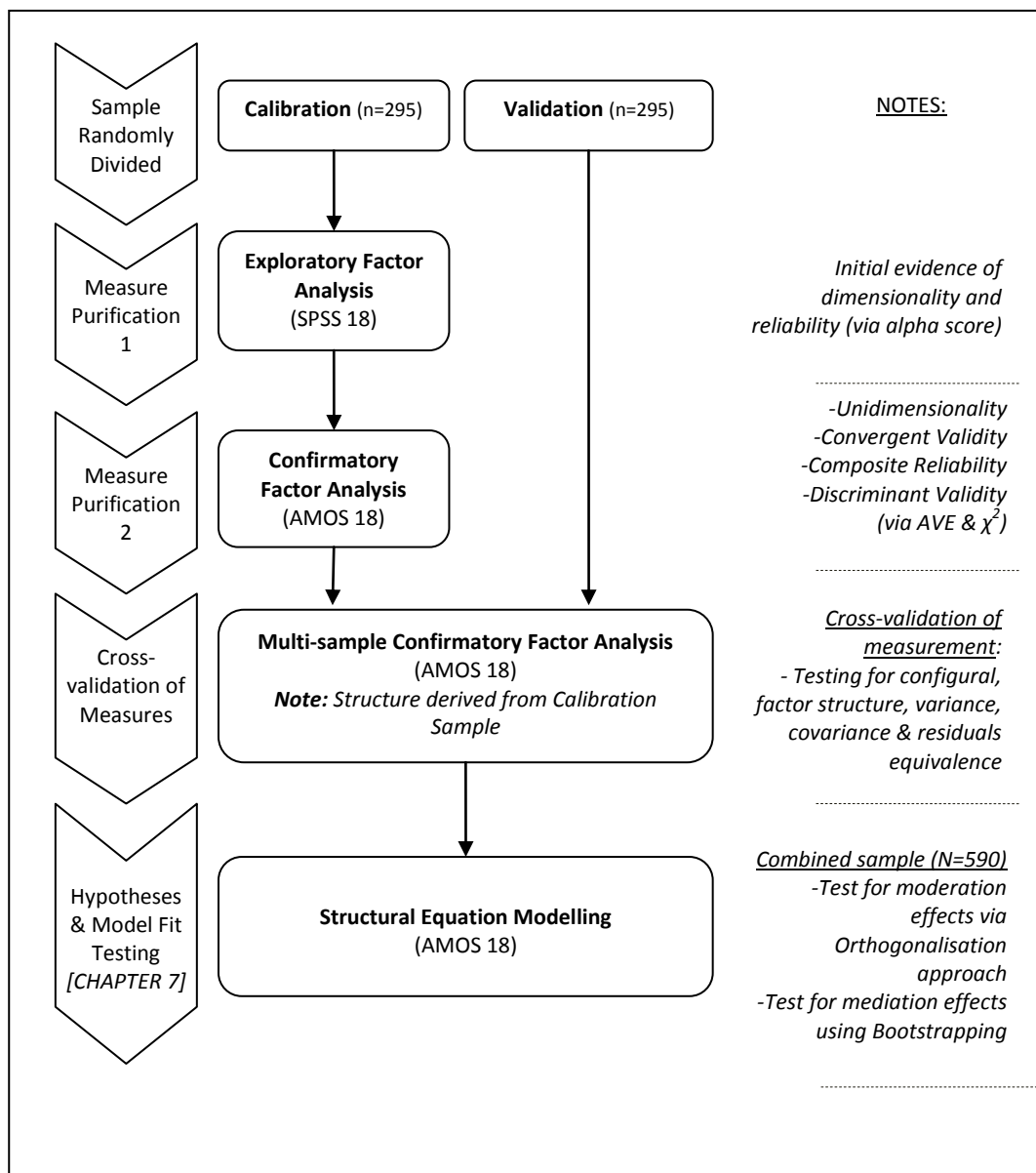
This chapter presents the second phase of the data analysis of the measurement model. This involves the random splitting of the full sample into two. The measurement model assessment for dimensionality, reliability, convergent validity and discriminant validity via factor analyses (exploratory and confirmatory) is performed on the first half of the sample. This is followed by multi-group confirmatory factor analyses (also known as nested models) on the two sample sets to compare and examine whether the two are equivalent. The purpose of the cross-validation procedure is to assess how well the purified observed indicator variables from the first half of the sample serve as a measurement instrument for the latent variables for the second half of the sample as well.

The next and final phase of the data analysis, involving the testing of hypotheses via SEM, by which the two samples are combined, is presented in Chapter 7.

Section 6.2 describes in detail the procedures and assessment criteria taken for this phase of data analysis, including the model fit statistics. Section

6.3, 6.4 and 6.5 present the measurement model assessments of the constructs. Finally, Section 6.6 presents the cross-validation procedure between the calibration and validation samples.

## 6.2 PROCEDURAL CONSIDERATIONS



**Figure 6-1: Flow of the Main Data Analysis**

For the purpose of the measurement model assessment and item purification, the sample (N=590) is divided randomly into two (Bagozzi and Yi 1988; Cudeck and Browne 1983; Diamantopoulos and Siguaw 2000); namely, into a calibration sample (n=295) and a validation sample (n=295). Within the calibration sample, the two-step approach to causal modelling as suggested by Anderson and Gerbing (1988) is followed, in which, first, exploratory factor analysis (EFA) is conducted, followed by confirmatory factor analysis (CFA). EFA is used as a procedure for measurement purification from a more conventional non-confirmatory approach. This is done to identify initial evidence of unidimensionality (Gerbing and Anderson 1988) and discriminant validity (Farrell 2010, p. 326) prior to a more confirmatory assessment. Then, CFA is performed on the basis of structural equation methodology, where the dimensionality, convergent validity, reliability and discriminant validity are assessed and confirmed. Having produced acceptable results from this procedure, a series of multi-sample confirmatory factor analyses (MCFA) is performed to cross-validate the calibration sample with the validation sample (Byrne 2010; Cudeck and Browne 1983; Hair *et al.* 2010). Here, the objectives are to test whether or not components of the measurement model are equivalent (i.e. invariance) and can be replicated across the two samples (Byrne 2010, p. 197). If the results show invariance, there will be sufficient evidence that the measures are stable and operating equivalently across the

two samples. This procedure is conducted in order to assess the stability of the instrument across both groups. Figure 6-1 illustrates the process.

Several decisions have to be made before the above-described analysis phases can take place. With regards to EFA, principal component analysis with oblique rotation is used as the extraction method. This is an approach to data reduction whereby linear combinations of items that account for the most variance are identified.

#### **6.2.1 Model Fit Statistics**

To determine whether a model is to be accepted or rejected, there are two primary types of goodness of fit (GFIs) indices; absolute and incremental. The most widely reported absolute GFIs include  $\chi^2$ , SRMR, RMSEA, GFI and AGFI, while the most frequently reported incremental GFIs include NFI, IFI (also known as RFI) and NNFI (also called as TLI) (See Table 6-1, on page 202).

While there is lack of consensus about which GFI should be reported, traditionally, the  $\chi^2$  has been the most popular. However, the  $\chi^2$  test is highly sensitive to sample size. This, coupled with the size of the correlations in the model (Kenny 2010), poses potential problems and limits the practical usefulness of such a test in evaluating goodness of fit (Bagozzi and Yi 1988; Baumgartner and Homburg 1996, p. 149). In particular, as the sample

increases (leading to high power), the  $\chi^2$  statistic tends toward statistical significance; increasing the likelihood of model rejection, irrespective of whether the model is true or false (type II error). This is because in a large sample, the  $\chi^2$  statistic can detect even the smallest discrepancies between the expected and observed covariance matrices, thus inducing rejection of the model (Garson 2009; Hu, Bentler and Kano 1992; Meade, Johnson and Braddy 2008). Nevertheless, in line with SEM tradition,  $\chi^2$  is still be reported in this thesis but is complemented with other fit indices developed by SEM theorists to overcome the shortcomings of  $\chi^2$  (Baumgartner and Homburg 1996).

Hu and Bentler (1998, p. 447) suggest the evaluating of at least two indices; preferably, one being the SRMR and the other the TLI, the CFI or the RMSEA. The SRMR index (Hu and Bentler 1999, p. 5) is relatively sensitive to mis-specification of factor covariance or latent structure (under the ML estimator). In contrast, TLI, CFI and RMSEA are highly responsive to poorly specified factor loadings. In addition, the SRMR (Hu and Bentler 1998) as well as the CFI and RMSEA (Fan, Thompson and Wang 1999) are relatively less sensitive to sample size than other indices. With respect to GFI and AGFI, the current general view is not to report these indices as they are strongly influenced by sample size and so may appear to be good even for mis-specified models (Hu and Bentler 1999, p. 5; Kenny 2010).

Following these guidelines, the main fit indices that are reported in this thesis and used for model assessment are:  $\chi^2$ , CFI, RMSEA, SRMR and NNFI. Table 6-1 presents a more detailed description of these indices and the suggested cut-off values for each.

**Table 6-1: Cut-off Points of Various Goodness-of-Fit Indices Used for Model Assessments in the Study**

Full Name of Fit Index	Description	Recommended Cut-offs	Source
Chi-square fit index, $\chi^2$	Indicates the discrepancy between hypothesised model and data. It also tests the null that the estimated covariance-variance matrix deviates from the sample variance-covariance matrix only because of sampling error.	$p > .05$	Hu <i>et al.</i> (1992)
Ratio of chi-square to degree of freedom, $\chi^2 / df$	Due to the sensitivity of the chi-square test in relation to sample size, the value is only meaningful when the degrees of freedom are taken into account. As such, the value is divided by the number of degrees of freedom.	2 to 1 or 3 to 1	
Comparative fit index, <i>CFI</i>	Demonstrates the extent to which the model fits compared to a baseline model and this is normally done on the null model, adjusted for the degrees of freedom.	$> .90$	Hoyle (1995, p. 7)
Non-normed fit index, <i>NNFI</i>	Depicts the extent to which the model fits compared to a baseline model. This is normally done on the null model, adjusted for the degree of freedom (can take values greater than one).	$> .95$ = good fit $< .90$ = respecify model	Hoyle (1995, p. 7)
Root means square error approximation, <i>RMSEA</i>	Illustrates the extent to which the model fits the population covariance matrix, taking into consideration the number of degrees of freedom. Unlike other fit statistics, it is able to generate a 90 per cent confidence interval, which provides information about precision of the estimate of fit. Adequately sensitive to model mis-specification.	$< .05$ = good fit $< .08$ = adequate fit	Browne and Cudeck (1992, p. 239) MacCallum and Austin (2000 p. 219)
Standardised root mean squared residual; <i>SRMR</i>	Estimates the average size of residuals between fitted and sample covariance matrix. It is very sensitive to model mis-specification but less sensitive to sample size. Relatively robust against violation of multivariate normality.	$< .08$	Hu and Bentler (1999, p. 1)

Source: Based on Viera (2008), extracting from Bagozzi and Yi (1988); Baumgartner and Homburg (1996); Cote *et al.* (2001); Diamantopoulos and Siguaw (2000); MacCallum *et al.* (1996); Ping (2004). Additional information was also gathered and compiled from Kenny (2010) and Garson (2009).

### 6.3 PERCEIVED SWITCHING COSTS (PSC)

**Table 6-2: Principal Component Analysis of Perceived Switching Costs**

	Items	LC	AC	UC	SEC	BR
L6	It takes time/effort to understand how to use other online retailers' websites.	.84				
L3	Switching my shopping activities to another online retailer would require too much learning.	.81				
L4	I feel that the competitors' websites are difficult to use.	.76				
L5	I am reluctant to change online retailer because I am familiar with 'how the system works' on this website.	.74				
L2r	Getting used to a new website after I switch would be very easy.	.66				
AR2	I receive special rewards and discounts from doing business with this online retailer.		.91			
AR4	Staying loyal gives me discounts and special deals.		.88			
AR3	I will lose the benefits of being a long-term customer if I leave my online retailer.		.85			
AR5	Staying loyal saves me money.		.84			
AR6	Switching to another online retailer would probably involve hidden costs/charges.		.53			
U5	Switching to another online retailer would be risky, since I wouldn't know the quality of its products/services.			-.80		
U2	I worry that switching my shopping activities to another online retailer would result in some unexpected problems.			-.80		
U3	If I were to change online retailer, I fear that the service I would receive might worsened.			-.80		
U1	I am concerned about the security of my personal information when registering on a new website.			-.76		
SE3	I cannot afford the time/effort to evaluate alternative online retailers fully.				.82	
SE1	I don't like spending time searching for a new online retailer.				.80	
SE4	Comparing the competitors in order to work out which best suits my needs is a time-consuming task.				.78	
SE5r	I don't think that the process of evaluating a new online retailer prior to switching would be a hassle.				.74	
BR2r	I do not care about the brand/company name of the online retailer that I use to buy this product.					.83
BR1	The brand of this retailer plays a major role in my decision to stay.					.82
BR3	I stay because I like the public image of the retailer.					.59
<b>Explained Variance</b>		28.9%	14.9%	8.5%	7.6%	6.5%
<b>Cronbach's Alpha</b>		.84	.88	.82	.81	.72
<b>Inter-item correlations</b>		.38-.60	.42-.76	.39-.66	.45-.58	.33-.57
All values are significant at $p < .05$ ; Values $< .50$ have been suppressed <sup>27</sup> ; R: Reverse-coded item; LC: Learning Costs; AC: Artificial Costs; UC: Uncertainty Costs; SEC: Search and Evaluation Costs; BR: Brand Relationship Loss						

<sup>27</sup> According to Hair (2010, p. 118), loading values of  $\pm .30$  to  $\pm .40$  should be the minimum acceptable in research, but values higher than  $\pm .50$  are required for useful application.



The 27 items of the scales hypothesised for perceived switching costs are submitted to EFA, the results of which indicate a five-factor structure (see Table 6-2). This is consistent with Burnham *et al.* (2003). The values observed for the Bartlett's test of sphericity are statistically significant ( $p=0.00$ ) and the value of the Kaiser-Meyer-Olkin measure of sampling adequacy (KMO) is 0.84, above the minimum threshold of 0.5 (Kaiser 1974), suggesting that the data are suitable for factor analysis.

An examination of both the eigen-values and the scree plot assist in the decision to retain these five factors, yielding a total variance explained of around 66.4 per cent. According to Hair *et al.* (2010), an explained variance of 60 per cent and sometimes less, is acceptable in social science research. With respect to communalities, lower values of items L1<sup>28</sup> (0.49), UC6<sup>29</sup> (0.49), UC4<sup>30</sup> (0.47), AR1<sup>31</sup> (0.48), AR7<sup>32</sup> (0.47) and SEC2r<sup>33</sup> (0.40) suggest the removal of these items. A communalities value below the minimum of 0.5 is unacceptable, as suggested by Hair *et al.* (2010, p. 119). The examination of factor loadings and inter-item correlations also help inform the decisions with

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<sup>28</sup> L1: Switching means I need to learn new routines and way of doing things on a new website.

<sup>29</sup> UC6: I feel more comfortable shopping on this website than on their competitors' websites.

<sup>30</sup> UC4: It would be inconvenient for me to switch to another online retailer.

<sup>31</sup> AR1: I hesitate to switch from this online retailer because it offers privileges I would not receive elsewhere.

<sup>32</sup> AR7: There are several financial costs/charges I would incur if I were to stop doing business with this online retailer.

<sup>33</sup> SEC2r: If I wanted to change online retailer, I would not have to search very hard to find a new one.

respect to these items showing correlations of above 0.3 (Robinson *et al.* 1991).

Taking into consideration preceding studies in the offline service environment (Burnham *et al.* 2003; Gremler 1995; Jones *et al.* 2002; Jones *et al.* 2007) and the content meaning of the statements, Factor 1 is named *Learning Costs* (LC), which broadly refers to an expenditure of time and effort to learn, understand and use a new online retailer effectively. Factor 2 is named *Artificial Costs* (AC), which to reiterate, refers to future loss of accumulated benefit and the expenditure of additional economic resources, in line with previous propositions (Chen and Hitt 2002; Farrell and Klemperer 2007; Klemperer 1987). Factor 3 is labelled *Uncertainty Costs* (UC), which may be incurred when customers change to an untested or unknown vendor (Caruana 2004). A customer, for instance, might wish to avoid the possible psychological stress as well as risk associated with the terminating of a current relationship and defection to competitors (Colgate and Lang 2001; Jones *et al.* 2002; Kim, Choi and Kim 2010). Factor 4 is named *Search and Evaluation Costs* (SEC), again, due to the content meaning implicit in the statements comprising this factor, consistent with the perspective evident in the literature (Burnham *et al.* 2003; Jones *et al.* 2002). Finally, Factor 5 is labelled *Brand Relationship Loss Costs* (BR), which broadly refers to the psychological discomfort resulting from breaking a bond that has been

established with an online retailer brand or company (Burnham *et al.* 2003; Porter 1980).

EFA is generally acknowledged as inadequate for providing a good test for unidimensionality. In our case of perceived switching costs, the EFA produces a five-factor structure measuring higher-order constructs of the customer-perceived switching costs towards the online retailer. According to Byrne (2010), the decision whether to model measurement instruments as a first- or second-order multidimensional construct depends on the underlying theory. In this context, it is felt that a second-order structure should be tested, in line with previous approaches to customer-perceived switching costs in the offline service environment (e.g., Burnham *et al.* 2003; Gremler 1995; Whitten and Wakefield 2006).

However, EFA is unsuitable for testing higher-order structure models (Hunter and Gerbing 1982; Rubio, Berg-Weger and Tebb 2001). Although EFA gives important information about dimensionality, further tests via CFA should be undertaken to sufficiently indicate the unidimensionality of each sub-construct. This is in line with the suggestion of Steenkamp and van Trijp (1991, p. 287), who stated that:

*“..when the construct consists of four or more sub-constructs, higher-order unidimensionality of the construct can be tested by performing a second-order confirmatory factor analysis on the covariances among the sub-constructs”.*

### **6.3.1 Dimensionality Tests for Online PSCs**

In the present case, EFA suggests a second-order factor structure composed of perceived switching costs as a higher-order construct, comprising of five lower-order dimensions, LC, AC, UC, SEC and BR - each of these being, in turn, unidimensional. The object of analysis is, therefore, whether unidimensionality holds for each of the first-order dimensions (Steenkamp and van Trijp 1991). Thus, a second-order CFA using SEM is deemed useful for clarification purposes.

CFA is performed on the items relating to perceived switching costs, aimed at ascertaining whether there is support for the second-order factor structure, and for the unidimensionality of each of the five first-order constructs. The overall fit of the CFA model provides the researcher with more robust evidence of the ‘true’ dimensionality of the measurement items (Kumar and Dillon 1987b; as quoted by Steenkamp and van Trijp 1991). The CFA fit indices are within the acceptable thresholds (see Table 6-3). Though the Chi-Square test is found to be significant ( $\chi^2 = 262.087$ ;  $p = 0.000$ ), the

ratio of chi-square/degrees of freedom is below 2 ( $df = 160$ ,  $\chi^2/df = 1.638$ ). A ratio between 2 to 1 or 3 to 1 is evidence of an acceptable fit (Cote, Netemeyer and Bentler 2001). Furthermore, the Goodness-of-Fit Index (GFI = 0.92), the Adjusted Goodness Fit Index (AGFI = 0.89), the Non-Normed Fit Index (NNFI = 0.953), the Comparative Fit Index (CFI = 0.961), as well as the Root Mean Square Error of Approximation (RMSEA = 0.047) all indicate a good fit (Diamantopoulos and Siguaw 2000; MacCallum, Browne and Sugawara 1996).

Finally, inspection of the matrix of standardised residuals (for item pairs with values above 2.58) and the modification indices (Gerbing and Anderson 1988; Jöreskog and Sörbom 2001; Steenkamp and van Trijp 1991) do not indicate substantial cross-loadings between any latent constructs. These also strengthen the evidence of higher-order factor structure and unidimensionality of the five sub-constructs.

Therefore, results suggest sufficient evidence of unidimensionality of each of the five dimensions of online perceived switching costs, LC, AC, UC, SEC and BR.

Although the results support the unidimensionality of each of the five sub-constructs, they are insufficient for the condition of construct validity of

each (Anderson and Gerbing, 1988). Therefore, further investigation of convergent validity, discriminant validity and reliability is required.

### **6.3.2 Convergent Validity Tests for Online PSCs**

Convergent validity is examined using three criteria: 1) observed variables / indicators must load significantly on the latent variable; 2) the size of each loading must be greater than twice its standard error (Anderson and Gerbing 1988; Steenkamp and van Trijp 1991); and 3) standardised loading of each indicator should be at least 0.5 (Chin 1998b; Hair *et al.* 2010, p. 695), preferably higher than 0.6 (Bagozzi and Yi 1988, p. 80). However, according to Fornell and Larcker (1981), loading of at least 0.7 is highly desirable.

All observed variables load significantly on the appropriate latent variable, providing initial evidence of convergent validity (Anderson and Gerbing 1988; Hair *et al.* 2010; Steenkamp and van Trijp 1991). This, coupled with acceptable goodness-of-fit statistics as previously discussed, suggest convergent validity (Kumar and Dillon 1987a, 1987b; Steenkamp and van Trijp 1991). Please refer to Table 6-3.

**Table 6-3: Confirmatory Factor Analysis of Perceived Switching Costs**

	Items	LC	AC	UC	SEC	BR	t-value
L6	It takes time/effort to understand how to use other online retailers' websites.	.71					13.18
L3	Switching my shopping activities to another online retailer would require too much learning.	.84					16.80
L4	I feel that the competitors' websites are difficult to use.	.66					11.89
L5	I am reluctant to change online retailer because I am familiar with 'how the system works' on this website.	.73					13.83
L2r	Getting used to a new website after I switch would be very easy.	.66					11.99
AR2	I receive special rewards and discounts from doing business with this online retailer.		.84				17.31
AR4	Staying loyal gives me discounts and special deals.		.89				18.74
AR3	I will lose the benefits of being a long-term customer if I leave my online retailer.		.85				17.60
AR5	Staying loyal saves me money.		.73				14.02
AR6	Switching to another online retailer would probably involve hidden costs/charges.						
U5	Switching to another online retailer would be risky, since I wouldn't know the quality of its products/services.			.76			14.27
U2	I worry that switching my shopping activities to another online retailer would result in some unexpected problems.			.85			16.63
U3	If I were to change online retailer, I fear that the service I would receive might worsened			.76			14.44
U1	I am concerned about the security of my personal information when registering on a new website.			.58			10.21
SE3	I cannot afford the time/effort to evaluate alternative online retailers fully.				.78		14.44
SE1	I don't like spending time searching for a new online retailer.				.74		13.43
SE4	Comparing the competitors in order to work out which best suits my needs is a time-consuming task.				.65		11.51
SE5r	I don't think that the process of evaluating a new online retailer prior to switching would be a hassle.				.69		12.40
BR2r	I do not care about the brand/company name of the online retailer that I use to buy this product.					.51	8.23
BR1	The brand of this retailer plays a major role in my decision to stay.					.76	13.28
BR3	I stay because I like the public image of the retailer.					.76	12.95
<b>Average Variance Extracted</b>		.53	.69	.62	.52	.49	
<b>Composite Reliability</b>		.85	.90	.87	.81	.73	
<b>Goodness-of-Fit Statistics</b>							
$\chi^2 = 262.087$ ( $p = 0.000$ ); $df = 160$ , ( $\chi^2/df$ ) = 1.638, RMSEA = .047 (PCLOSE = .702); GFI = .918; CFI = .960, AGFI = .893; NNFI = .953; SRMR = .052							
r: Reverse-coded item; LC : Learning Costs; AC: Artificial Costs; UC: Uncertainty Costs; SEC: Search and Evaluation Costs; BR: Brand Relationship Loss							

In terms of the strength of indicator loadings, Hair *et al.* (2010, p. 709) provide the rule of thumb that all standardised loading estimates should be 0.5 or higher. Shevlin and Miles (1998, p. 86) categorise item loadings of around 0.5 in a CFA model as medium in strength. Here, the evidence of convergent validity is also strengthened by the acceptable loadings of all items – larger than 0.5 (also see, Hildebrandt 1987, p. 28; Steenkamp and van Trijp 1991).

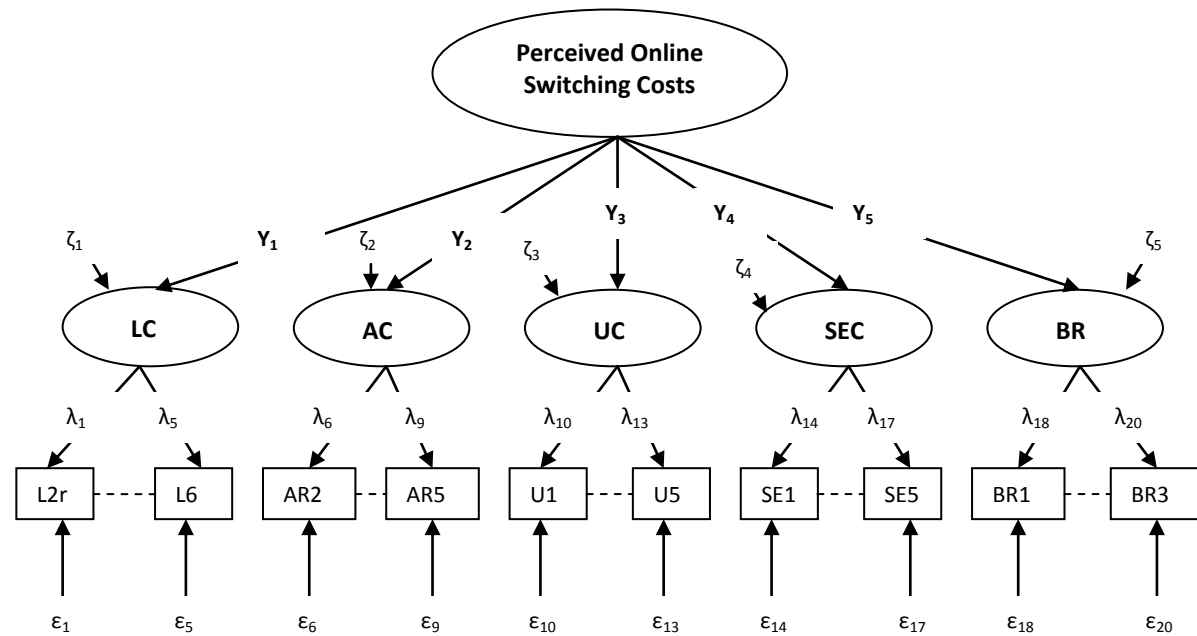
However, there are more stringent guidelines in the literature with regards to the strength of factor loadings. Fornell and Larcker (1981) postulate that the standardised loading estimate for each indicator should be at least 0.7 and statistically significant. At the same time, Bagozzi and Yi (1988, p. 80) and Chin (1998b) suggest a requirement of at least 0.6 and significance for an individual item to be reliable. As presented in Table 6-3, out of the 20 indicators or individual items retained, 18 meet the criterion of Bagozzi and Yi (1988) and Chin (1998b). Though the strength of loadings of U1 and BR2r is lower than preferred, unless there is evidence suggesting that they are problematic, they are retained to support content validity (Hair *et al.* 2010, p. 715). However, with respect to AR6, examination of the modification indices reveals the item to be extremely problematic due to cross-variable loading (with *all* other four factors). As a consequence, the item is removed.



Fornell and Larcker (1981) also propose that the average variance extracted (AVE) could provide evidence of convergent validity. AVE measures the shared or common variance of a latent construct. The higher the AVE, the higher the amount of variance able to be captured by a latent construct relative to the amount of variance of its measurement error (Ping 2005). A latent construct that is adequately convergent should have indicators composed of at least 50 per cent of error-free shared variance (i.e. AVE of at least 0.5) (Fornell and Larcker 1981). As shown in Table 6-3, all the latent constructs meet this more stringent criterion with the exception of latent BR (0.482), which is marginally lower than 0.5.

$$\text{Average variance extracted (AVE)} = \frac{\sum \lambda_i^2}{\sum \lambda_i^2 + \sum \epsilon_i}$$

Where:  $\lambda_i$  = the standardised loading of each indicator (observed variable)  
 $\epsilon_i$  = the error variance associated with each indicator



Second-order factor: Perceived online switching costs

First-order factor dimensions: LC, AC, UC, SEC, BR

**Figure 6-2: Second-Order CFA Model for Perceived Switching Costs**

With regard to the second-order construct CFA (illustrated in Figure 6-2), it is necessary for an additional requirement to be met to assess convergent validity, whereby the path coefficient estimates between the first-order dimensions and second-order global construct PSC (that is the coefficient  $\gamma$  in Figure 6-2) must be significant (Benson and Bandalos 1992; Koufteros, Babbar and Kaighobadi 2009). This also holds true for this model (see Table 6-4), thus indicating convergent validity.

**Table 6-4: Path Coefficient Estimates of Second-Order PSC and its First-Order Dimensions**

	Path	Estimate	t-value
PSC→L C	$\gamma_1$	.699 <sup>***</sup>	8.660
PSC→AC	$\gamma_2$	.332 <sup>***</sup>	4.554
PSC→UC	$\gamma_3$	.709 <sup>***</sup>	9.041
PSC→SEC	$\gamma_4$	.564 <sup>***</sup>	7.004
PSC→BR	$\gamma_5$	.700 <sup>***</sup>	8.242

**Note:** PSC : Perceived Switching Costs

### 6.3.3 Reliability Tests for Online PSCs

The test for evidence of measurement reliability is conducted after sufficient unidimensionality and convergent validity have been established. This is necessary due to the fact that a construct may have a high reliability score despite not being unidimensional or not even meeting the convergent validity cut-off rule (Hair *et al.* 2010; Steenkamp and van Trijp 1991). Many authors suggest that reliability assessment should be undertaken after

unidimensionality has been met (Cortina 1993; Gerbing and Anderson 1988; Hattie 1985). It is possible that a construct, shows internal consistency (having several measures that are closely interrelated and clustered together), but is not unidimensional or homogenous (Hulin *et al.* 2001). According to Hunter and Gerbing (1982, p. 281), “*coefficient alpha provides an unbiased estimate of the reliability of the cluster score only if the scale is unidimensional*”.

The Cronbach’s alpha scores are presented in Table 6-2 and the Raykov’s rho composite reliability scores are shown in Table 6-3. As can be observed, all alpha scores are above Nunnally’s (1978) 0.7 cut-off point, suggesting acceptable and adequate reliability. In terms of the composite reliability, each latent component exceeds the threshold of 0.6 suggested by Bagozzi and Yi (1988). This strengthens the evidence for the adequate reliability of the measurement.

$$\text{Composite reliability (CR)} = \frac{(\sum \lambda_i)^2}{(\sum \lambda_i)^2 + \sum \epsilon_i}$$

Where:  $\lambda_i$  = the standardised loading of each indicator (observed variable)  
 $\epsilon_i$  = the error variance associated with each indicator

#### 6.3.4 Discriminant Validity Test for Online PSCs

Table 6-5 provides the correlations (below the diagonal) between latent constructs ranging from 0.03 to 0.53. One precursor of measure

distinctiveness is when the inter-construct correlations do not exceed 0.7 (Kline 2005, p. 73; Ping 2004, p. 1) or are significantly different from unity (1991), showing that all construct measures are distinct.

**Table 6-5: Intra-PSC Discriminant Validity Assessment - Average Variance Extracted and Shared Variance Estimates**

Constructs	Items	LC	AC	UC	SEC	BR
LC	5	<b>.525</b>	.046	.212	.240	.226
AC	4	.215	<b>.690</b>	.063	.001	.129
UC	4	.460	.251	<b>.623</b>	.173	.279
SEC	4	.490	.030	.416	<b>.518</b>	.108
BR	3	.476	.359	.528	.328	<b>.482</b>

**Note:** Correlations are below the diagonal, squared correlations are above the diagonal and AVE estimates are presented on the diagonal in bold. PSC: Perceived Switching Costs; LC: Learning Costs; AC: Artificial Costs; CUC: Uncertainty Costs; SEC: Search and Evaluation Costs; BR: Brand Relationship Loss

A more stringent criterion of discriminant validity is when the AVE value of a latent construct is higher than the squared correlations<sup>34</sup> between the latent construct and all other latent constructs (Fornell and Larcker 1981). The notion here is that a latent construct should explain better the variance of its own indicators than the variance of other latent constructs. As presented in Table 6-5, results suggest support for discriminant validity where all the AVE values surpass the inter-construct correlations by quite a high margin.

<sup>34</sup> The square of correlation of any two constructs represents the shared variance of the two constructs. For example, if the correlation between learning cost and artificial cost constructs is 0.215, the shared variance between them is 0.046.

**Table 6-6:  $\chi^2$  Differences - Standard Model vs. 'Non-Discriminant' Model of PSC Construct – Discriminant Validity**

PAIR	$\chi^2$ DIFFERENCE*
LC (Learning Costs) $\leftrightarrow$ AC (Artificial Costs)	460.411
LC (Learning Costs) $\leftrightarrow$ UC (Uncertainty Costs)	316.186
LC (Learning Costs) $\leftrightarrow$ SEC (Search and Evaluation Costs)	240.348
LC (Learning Costs) $\leftrightarrow$ BR (Brand Relationship)	135.716
AC (Artificial Costs) $\leftrightarrow$ UC (Uncertainty Costs)	403.012
AC (Artificial Costs) $\leftrightarrow$ SEC (Search and Evaluation Costs)	364.751
AC (Artificial Costs) $\leftrightarrow$ BR (Brand Relationship)	158.287
UC (Uncertainty Costs) $\leftrightarrow$ SEC (Search and Evaluation Costs)	276.22
UC (Uncertainty Costs) $\leftrightarrow$ BR (Brand Relationship)	124.27
SEC (Search and Evaluation Costs) $\leftrightarrow$ BR (Brand Relationship)	165.71
*( $\Delta DF=1$ , $p=0.000$ )	

In addition, for each pair of constructs, a set of CFA models is tested. For each model, the Chi-square ( $\chi^2$ ) difference is examined between the standard model and the 'non-discriminant' model (the model where correlation between the pair is constrained to 1.0) (Anderson and Gerbing 1988; Bagozzi *et al.* 1991)<sup>35</sup>. Here, the interest is mainly on the chi-square change between the two models. The null hypothesis is that the construct is not distinct. If the null hypothesis is rejected, discriminant validity of the construct is supported. The results suggest that the difference is significant for all the 10 pairs, hence further strengthening the evidence in support of discriminant validity.

<sup>35</sup> To test discriminant validity, Anderson and Gerbing (1988) recommend each pair of latent constructs be assessed separately under CFA; first with the correlation between them unconstrained and then with the correlation constrained to 1.0, demonstrating for each pair that the constrained model is significantly inferior in fit.

These results confirm the dimensions of perceived switching costs and are consistent with previous multidimensional customer switching cost studies (Burnham *et al.* 2003; Gremler 1995; Jones *et al.* 2002). Detailed descriptions and discussions of each dimension have been presented in Chapter 3 (pp. 100 - 115).

#### **6.4 ALTERNATIVE ATTRACTIVENESS (ATA)**

The second primary construct for which the dimensions require investigation before its insertion into the model is that of alternative attractiveness. A similar process to that presented for perceived switching costs is adopted for the evaluation of this construct.

The findings of the EFA on the calibration sample performed on the nine items measuring perceived alternative attractiveness suggest a three-factor structure (Table 6-7). Examination of the Bartlett's test of sphericity ( $p = 0.000$ ) as well as the KMO values (0.667) show them all to be adequate suggesting the suitability of factor analysis for this data. The inspection of the eigenvalues and the scree plot further reinforces the decision to retain these three dimensions. The EFA also reveals total variance explained to be approximately 75 per cent (at least 60 per cent is recommended by Hair *et al.*

(2010). Low community values of ATA3<sup>36</sup> (0.419) and ATA8<sup>37</sup> (0.198) lead to the removal of these items. Examination of the inter-item correlations of the two problematic items with the other related indicators corroborates the decision to remove them. Indeed, upon close examination of participants' responses, these items appear rather misplaced in relation to other items used to measure the alternative attractiveness construct.

Factor 1 is labelled *Retailer Indifference* (RI), referring to the overall perception that as most other retailers are similar, it may not be worthwhile searching for alternatives. Factor 2 is named *Alternative Awareness* (AA), which refers to customers' high awareness of competitors in the market, possibly due to customers' experience in online shopping. Finally, Factor 3 is labelled *Alternative Preference* (AP), reflecting customers' preference for a competitor's service and offerings to their current retailer's. The first two factors closely resemble those extracted by Balabanis *et al.* (2006), namely 'parity barriers' and 'unawareness barriers'. The third factor concurs with the factor found in Li *et al.* (2006) and Rusbult *et al.* (1998), labelled 'quality of alternative'.

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<sup>36</sup> ATA3: The only difference between the major online retailers of this type of product is price.

<sup>37</sup> ATA 8: The quality of offering varies greatly between competing websites.



Next, CFA is conducted to complement EFA in assessing the psychometric properties of the constructs.

**Table 6-7: Principal Component Analysis of Attractiveness of Alternatives**

	Items	RI	AA	AP
ATA7	I would probably be just as happy with the service of another online retailer.	.931		
ATA6	I could be buying from a competing website and not notice much difference.	.910		
ATA9r	My experience with the competitors is limited		.886	
ATA1	If I had to change online retailer, I know of another which is just as good.		.725	
ATA2r	Compared to this online retailer, there are not many competitors with whom I could be satisfied.		.549	
ATA5	To my mind, another online retailer is closer to my ideal.			-.934
ATA4	I feel that an alternative online retailer is better than this one.			-.890
<b>Explained Variance</b>		40.8%	18%	16.6%
<b>Cronbach's Alpha</b>		.859	.642	.788
<b>Inter-item correlations</b>		.76	.25-.45	.65
All values are significant at $p < .05$ ; Values; Values $< .50$ have been suppressed.				
R: Reverse-coded item				
RI: Retailer Indifference; AA: Alternative Awareness; AP: Alternative Preference.				

#### 6.4.1 Dimensionality Tests for ATA

A CFA is conducted on the indicators related to the alternative attractiveness construct. The construct is regarded as higher-order and comprising of three lower-order dimensions, *RI*, *AA* and *AP*. The overall model fit is considered to be acceptable in view of the generally acceptable cut-off values (please refer to Table 6-8). Though the  $\chi^2$  value is significant, the ratio between  $\chi^2$  and degrees of freedom is only a little above 2. Moreover, the value of RMSEA, though higher than 0.5, is still below the threshold of 0.8, indicating a reasonable fit (Browne and Cudeck 1993; Chen, Curran, Bollen, Kirby and

Paxton 2008; MacCallum *et al.* 1996). All other values pertaining to the goodness-of-fit index show excellent fit (Table 6-8).

**Table 6-8: Confirmatory Factor Analysis of Alternative Attractiveness**

	Items	RI	AP	AA	t-value
ATA6	I could be buying from a competing website and not notice much difference.	.915			15.179
ATA7	I would probably be just as happy with the service of another online retailer.	.823			13.727
ATA4r	I feel that an alternative online retailer is better than this one.		.862		12.033
ATA5r	To my mind, another online retailer is closer to my ideal.		.754		10.972
ATA1	If I had to change online retailer, I know of another which is just as good.			.678	9.540
ATA2r	Compared to this online retailer, there are not many competitors with whom I could be satisfied.			.679	9.576
<b>Average Variance Extracted</b>		.757	.656	.460	
<b>Composite Reliability</b>		.862	.791	.630	
<b>Goodness-of-Fit Statistics</b>					
$\chi^2 = 13.037$ ( $p = 0.042$ ); $df = 6$ , ( $\chi^2/df$ ) = 2.173, RMSEA = .063 (PCLOSE = .273); GFI = .985; CFI = .988, AGFI = .949; NNFI = .969; SRMR = .023					
r: Reverse-coded item; RI: Retailer Indifference; AP: Alternative Preference; AA: Alternative Awareness					

The next step is the assessment of the second-order construct via CFA. The result shows that the relationships between the second-order ATA construct and its first-order dimensions (RI, AP and AA) are all statistically significant with a t-value of above 1.96 (Table 6-9). This provides sufficient evidence of the unidimensionality of the latent constructs.

**Table 6-9: Path Coefficient Estimates of Second-Order Alternative Attractiveness and its First-Order Dimensions**

	Path	Estimate	t-value
ATA→RI	Y <sub>1</sub>	.811 <sup>***</sup>	7.746
ATA→AP	Y <sub>2</sub>	.411 <sup>***</sup>	6.896
ATA→AA	Y <sub>3</sub>	.862 <sup>***</sup>	7.075

**Note:** ATA: Alternative Attractiveness; RI: Retailer Indifference; AP = Alternative Preference; AA: Alternative Awareness

#### 6.4.2 Convergent Validity Test for ATA

Examination of the modification indices has shown item ATA9r to be problematic due to evidence of cross-loadings and error covariances. Inspection of the standardised residuals matrix also corroborates the need for its removal due to the value of above 2.58 for ATA9r<sup>38</sup> and two other items (Gerbing and Anderson 1988; Jöreskog and Sörbom 2001; Steenkamp and van Trijp 1991).

All factor loadings are statistically significant, showing that convergent validity has been established (Bagozzi *et al.* 1991, p. 434). The assumption of convergent validity is generally supported by all the loadings having values higher than 0.6 (Bagozzi and Yi 1988) (Table 6-9). Convergent validity is also supported due to the good overall fit of the model (Hildebrandt 1987; Steenkamp and van Trijp 1991). In terms of AVE estimates, the result also indicates good convergence with the exception of construct AA (0.46), which

<sup>38</sup> ATA9r: My experience with the competitors is limited

is below Fornell and Larcker's (1981) cut-off point of 0.5. However, the AA sub-construct will be retained for further analysis for reasons of construct face validity and construct coverage (Farrell 2010; Ping 2004, p. 128). In addition, AVE of 0.46 is only marginally lower than 0.5.

#### **6.4.3 Reliability Test for ATA**

Again, the assessment of construct reliability is conducted after convergent validity has been established. As presented in Table 6-8, the Raykov's rho composite reliability values surpass Bagozzi and Yi's (1988) 0.6 cut-off point. As such, it can be concluded that all the constructs have acceptable reliability.

#### **6.4.4 Discriminant Validity Test for ATA**

As shown in Table 6-10 (in italics), the inter-construct correlations do not exceed 0.7, providing initial evidence that all constructs are distinct from each other. In addition, the AVE estimates are all higher than the squared correlations between all construct pairs. This provides further evidence of discriminant validity in complying with the more stringent guidelines of Fornell and Larcker (1981).

**Table 6-10: Intra-ATA Discriminant Validity Assessment - Average Variance Extracted and Shared Variance Estimates**

Constructs	Items	RI	AP	AA
RI	2	<b>.757</b>	.014	.312
AP	2	.375	<b>.656</b>	.250
AA	2	.559	.500	<b>.460</b>

**Note:** Correlations are below the diagonal, squared correlations are above the diagonal and AVE estimates are presented on the diagonal in bold; ATA: Alternative Attractiveness, RI: Retailer Indifference, AP: Alternative Preference, AA: Alternative Awareness.

Table 6-11 reveals further proof of measurement distinctiveness through the verification assessment of discriminant validity following the  $\chi^2$  difference test methodology (Anderson and Gerbing 1988; Bagozzi *et al.* 1991; Jöreskog 1971). Here, the  $\chi^2$  difference between the constrained and unconstrained model are all significant ( $p=0.000$ ) with the goodness of fit values of the constrained models being considerably inferior to their respective unconstrained model.

**Table 6-11:  $\chi^2$  Differences - Standard Model vs. 'Non-Discriminant' Model of Alternative Attractiveness – Discriminant Validity**

PAIR	$\chi^2$ DIFFERENCE*
RI (Retailer Indifference) $\leftrightarrow$ AP (Alternative Preference)	42.107
RI (Retailer Indifference) $\leftrightarrow$ AA (Alternative Awareness)	39.326
AP (Alternative Preference) $\leftrightarrow$ AA (Alternative Awareness)	140.607
*( $\Delta DF=1$ , $p=0.000$ )	

#### 6.4.5 Discriminant Validity Evaluation between PSC and ATA

To assess the evidence for discriminant validity between the two constructs, another series of complementary CFA models is administered. Pairs of sub-constructs not covered in the previous CFA models are assessed. Similarly, the

focus of the models is on the  $\chi^2$  difference between model pairs; that is, the standard model (no constraint imposed) vs. 'non-discriminant' models (where the correlation between the constructs is constrained to unity, having one more degree of freedom relative to the standard model) of each pair. The result of the analysis is presented in Table 6-12. All the differences of  $\chi^2$  are found to be significant ( $p=0.000$ ), providing strong support for discriminant validity among *all* the sub-constructs related to perceived switching costs and alternative attractiveness.

**Table 6-12:  $\chi^2$  Differences - Standard Model vs. 'Non-Discriminant' Model of Perceived Switching Costs and Alternative Attractiveness – Discriminant Validity**

PAIR	$\chi^2$ DIFFERENCE*
LC (Learning Costs) $\leftrightarrow$ RI (Retailer Indifference)	256.065
LC (Learning Costs) $\leftrightarrow$ AA (Alternative Awareness)	59.662
LC (Learning Costs) $\leftrightarrow$ AP (Alternative Preference)	157.908
AC (Artificial Costs) $\leftrightarrow$ RI (Retailer Indifference)	236.044
AC (Artificial Costs) $\leftrightarrow$ AA (Alternative Awareness)	67.924
AC (Artificial Costs) $\leftrightarrow$ AP (Alternative Preference)	157.872
UC (Uncertainty Costs) $\leftrightarrow$ RI (Retailer Indifference)	227.293
UC (Uncertainty Costs) $\leftrightarrow$ AA (Alternative Awareness)	54.401
UC (Uncertainty Costs) $\leftrightarrow$ AP (Alternative Preference)	162.232
SEC (Search and Evaluation Costs) $\leftrightarrow$ RI (Retailer Indifference)	243.532
SEC (Search and Evaluation Costs) $\leftrightarrow$ AA (Alternative Awareness)	59.411
SEC (Search and Evaluation Costs) $\leftrightarrow$ AP (Alternative Preference)	283.719
BR (Brand Relationship) $\leftrightarrow$ RI (Retailer Indifference)	221.406
BR (Brand Relationship) $\leftrightarrow$ AA (Alternative Awareness)	65.144
BR (Brand Relationship) $\leftrightarrow$ AP (Alternative Preference)	194.753
*( $\Delta DF=1$ , $p=0.000$ )	

## 6.5 SATISFACTION, LOYALTY AND HABIT

The result of the EFA performed on the four indicators of satisfaction (SAT), five indicators of loyalty (LOY) and three indicators of habit (HAB) suggests a three-factor structure as predicted (Table 6-13).

**Table 6-13: Principal Component Analysis of Satisfaction, Loyalty and Habit**

	Items	SAT	LOY	HAB
SAT1	I am pleased with the overall service.	.885		
SAT3	Overall, I am completely satisfied with my shopping experience.	.885		
SAT4	When I think about my shopping experience here, I am generally pleased.	.872		
SAT2	Shopping here is a delightful experience.	.743		
LOY2	I would not even consider another online retailer for this product.		.837	
LOY1	When I have a need for this type of product, I will use only this online retailer.		.730	
LOY5	I am unlikely to switch to another online retailer in the near future.		.676	
LOY3	I will continue to do business with this online retailer even if its prices increase somewhat.		.663	
HAB2	I remain a customer of this website out of habit.			.791
HAB3	When I need this type of product, visiting this website has become automatic.			.716
HAB1	When I need this type of product, using this website is an obvious choice for me.			.671
<b>Explained Variance</b>		34%	16%	10%
<b>Cronbach's Alpha</b>		.821	.728	.629
<b>Inter-item correlations</b>		.561-.725	.243-.517	.245-.491
All values are significant at $p < .05$ ; Values; Values $< .50$ have been suppressed.; r: reverse-coded				
SAT: Satisfaction; LOY: Loyalty; HAB: Habit				

The values observed for the Bartlett's test of sphericity ( $p=0.000$ ) and the value of the Kaiser-Meyer-Olkin measure of sampling adequacy ( $KMO=0.842$ ) are good and significant, showing that data is suitable for factor

analysis procedure. The inspection of both eigenvalues and the scree plot confirms the three-factor structure, generating a total variance explained of 60.1 per cent. In terms of communalities, the low values for LOY4r<sup>39</sup> may result in the elimination of this item. The examination of inter-item correlations together with the Cronbach's Alpha reliability assessment further informs the decision to exclude LOY4r.

The Cronbach's alpha assessment indicates that all items should be retained in their individual factors, with the exception of the two items mentioned above. However, the construct habit appears to have alpha value of lower than the 0.7; the minimum point for Nunnally (1978). Given that Cronbach's alpha is biased against short scales of two or three indicators (Churchill and Iacobucci 2005, p. 283), this small shortfall in meeting the threshold is ignored. Any decision with respect to whether to remove or retain the construct will be made after the CFA in which composite reliability and AVE are assessed.

#### **6.5.1 Dimensionality Test for SAT, LOY and HAB**

Table 6-14 describes the result of the CFA performed on the items relating to satisfaction, loyalty and habit constructs. The table presents key statistics such as composite reliability and average variance extracted (AVE) for each

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<sup>39</sup> LOY4r: I am not loyal to this online retailer



construct. All items meet the criterion of Hair *et al.* (2010), having factor loadings of at least 0.5 with the exception of HAB1<sup>40</sup> (0.409) and LOY3<sup>41</sup> (0.467). This leads to the removal of these two items from the model. On inspection of the modification indices, further cross-loading and error covariance problems are found with regards to SAT2<sup>42</sup>. As such, this item is also dropped and the model is re-specified.

Overall, given that all items load strongly and significantly on unique dimensions, the findings suggest sufficient evidence of unidimensionality for each of the three constructs; namely, satisfaction, loyalty and habit.

### 6.5.2 Convergent Validity Test for SAT, LOY and HAB

Convergent validity is supported given that each item loads significantly at  $p < 0.001$  onto the latent construct it is intended to measure. Loadings, ranging from 0.684 to 0.819, surpass Bagozzi and Yi's suggestion and the AVE values, ranging from 0.501 to 0.633, meet Fornell and Larcker's requirement. As the goodness-of-fit index suggests a well-fitting model (see Table 6-14), the assumption of convergent validity is strengthened (Steenkamp and van Trijp 1991).

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<sup>40</sup> HAB1: When I need this type of product, using this website is an obvious choice for me.

<sup>41</sup> LOY3: I will continue to do business with this online retailer even if its prices increase somewhat.

<sup>42</sup> SAT2: Shopping here is a delightful experience.

**Table 6-14: Confirmatory Factor Analysis of Satisfaction, Loyalty and Habit**

	Items	SAT	LOY	HAB	t-value
SAT1	I am pleased with the overall service.	.787			14.836
SAT3	Overall, I am completely satisfied with my shopping experience.	.813			15.465
SAT4	When I think about my shopping experience here, I am generally pleased.	.786			14.815
LOY2	I would not even consider another online retailer for this product.		.684		10.997
LOY1	When I have a need for this type of product, I will use only this online retailer.		.819		13.082
LOY5	I am unlikely to switch to another online retailer in the near future (con4).		.603		9.718
HAB2	I remain a customer of this website out of habit.			.804	12.234
HAB3	When I need this type of product, visiting this website has become automatic.			.726	11.276
<b>Average Variance Extracted</b>		.633	.501	.589	
<b>Composite Reliability</b>		.838	.748	.739	
<b>Inter-correlation</b>		Sat↔Loy .30	Sat↔Hab .53	Loy↔Hab .45	
<b>Goodness-of-Fit Statistics</b>					
$\chi^2 = 33.006$ ( $p = 0.011$ ); $df = 17$ , ( $\chi^2/df$ ) = 1.941, RMSEA = .057 (PCLOSE = .322); GFI = .973; CFI = .979, AGFI = .942; NNFI = .966; SRMR = .0570					
SAT: Satisfaction; LOY: Loyalty; HAB: Habit					

### 6.5.3 Reliability Test of SAT, LOY and HAB

Again, reliability is assessed after examining unidimensionality and convergent validity. As can be seen in Table 6-14, composite reliability for each of the three constructs exceeds Bagozzi and Yi's (1988) minimum strength requirement of 0.6, suggesting adequate reliability. In addition, the high composite reliability provides further evidence of unidimensionality (Hattie 1985).

With respect to the Habit construct, despite the less desirable Cronbach's Alpha score (see Table 6-13), the composite reliability score is found to be very good (0.739), surpassing Bagozzi and Yi's 0.6 minimum recommendation (Table 6-14). The Habit construct is retained in the model, due to the tendency for Cronbach's Alpha to underestimate reliability (Raykov 1997, 1998) and due also to the capacity for Raykov's composite reliability to offer a better judgement of unidimensionality and scale reliability (Cortina 1993; Garson 2009; Gerbing and Anderson 1988).

#### **6.5.4 Discriminant Validity Test of SAT, LOY and HAB**

The findings also provide evidence that satisfaction, loyalty and habit constructs possess discriminant validity. First, discriminant validity is assessed by examining the correlation between constructs as too high a correlation ( $> 0.7$ ) may signal concern about that particular discriminant validity. The correlations between the constructs are all found to be below 0.7, providing the first evidence of measurement distinctiveness (Ping 2004). As presented in Table 6-15, the constructs also surpass the more stringent requirement of Fornell and Larcker (1981), when all the AVE values exceed the squared of correlation between the constructs.

**Table 6-15: Satisfaction, Loyalty and Habit Discriminant Validity Assessment  
-Average Variance Extracted and Shared Variance Estimates**

Constructs	Items	SAT	LOY	HAB
SAT	3	<b>.633</b>	.009	.277
LOY	3	.300	<b>.501</b>	.200
HAB	2	.526	.447	<b>.587</b>

**Note:** Correlations are below the diagonal, squared correlations are above the diagonal and AVE estimates are presented on the diagonal in bold; SAT: Satisfaction, LOY: Loyalty, HAB: Habit.

Furthermore, when a series of CFA models is conducted for each construct pair in order to examine the  $\chi^2$  differences between the default model and the model in which the correlation between the constructs is constrained to unity, discriminant validity is supported. As presented in Table 6-16, all the  $\chi^2$  differences are statistically significant at  $p=0.000$ , providing additional evidence of discriminant validity for all constructs concerned.

**Table 6-16:  $\chi^2$  Differences - Standard Model vs. 'Non-Discriminant' Model of Satisfaction, Loyalty and Habit – Discriminant Validity**

PAIR	$\chi^2$ DIFFERENCE*
SATISFACTION $\leftrightarrow$ LOYALTY	148.873
SATISFACTION $\leftrightarrow$ HABIT	82.714
LOYALTY $\leftrightarrow$ HABIT	89.886
	*( $\Delta DF=1$ , $p=0.000$ )

**6.5.5 Discriminant Validity Test for All Constructs in the Proposed Model  
(PSC, ATA, SAT, LOY and HAB)**

To assess the evidence of discriminant validity between all constructs in the model, another series of complementary CFA models is administered. Pairs of sub-constructs not covered in Sections 6.3.4 and 6.4.4 above are assessed. As in the previous series, focus is upon on the  $\chi^2$  difference between model pairs, that is, the standard model (no constraint imposed) vs. 'non-discriminant' models (the correlation between the constructs is constrained to unity, having one more degree of freedom relative to the standard model), of each pair. The result of the analysis is presented in Table 6-17, where all the differences of  $\chi^2$  are found to be significant ( $p=0.000$ ). Based on this result, it can be concluded that all the constructs and sub-constructs within the research model possess discriminant validity and are distinct from each other.

**Table 6-17:  $\chi^2$  Differences - Standard Model vs. 'Non-Discriminant' Model of All Variables – Discriminant Validity**

PAIR	$\chi^2$ DIFFERENCE*
LC (Learning Costs) $\leftrightarrow$ RI (Retailer Indifference)	256.065
LC (Learning Costs) $\leftrightarrow$ AA (Alternative Awareness)	59.662
LC (Learning Costs) $\leftrightarrow$ AP (Alternative Preference)	157.908
LC (Learning Costs) $\leftrightarrow$ Satisfaction	466.133
LC (Learning Costs) $\leftrightarrow$ Loyalty	138.097
LC (Learning Costs) $\leftrightarrow$ Habit	82.219
AC (Artificial Costs) $\leftrightarrow$ RI (Retailer Indifference)	236.044
AC (Artificial Costs) $\leftrightarrow$ AA (Alternative Awareness)	67.924
AC (Artificial Costs) $\leftrightarrow$ AP (Alternative Preference)	157.872
AC (Artificial Costs) $\leftrightarrow$ Satisfaction	473.839
AC (Artificial Costs) $\leftrightarrow$ Loyalty	154.352
AC (Artificial Costs) $\leftrightarrow$ Habit	85.176
UC (Uncertainty Costs) $\leftrightarrow$ RI (Retailer Indifference)	227.293
UC (Uncertainty Costs) $\leftrightarrow$ AA (Alternative Awareness)	54.401
UC (Uncertainty Costs) $\leftrightarrow$ AP (Alternative Preference)	162.232
UC (Uncertainty Costs) $\leftrightarrow$ Satisfaction	441.307
UC (Uncertainty Costs) $\leftrightarrow$ Loyalty	145.761
UC (Uncertainty Costs) $\leftrightarrow$ Habit	73.730
SEC (Search and Evaluation Costs) $\leftrightarrow$ RI (Retailer Indifference)	243.532
SEC (Search and Evaluation Costs) $\leftrightarrow$ AA (Alternative Awareness)	59.411
SEC (Search and Evaluation Costs) $\leftrightarrow$ AP (Alternative Preference)	283.719
SEC (Search and Evaluation Costs) $\leftrightarrow$ Satisfaction	470.421
SEC (Search and Evaluation Costs) $\leftrightarrow$ Loyalty	155.129
SEC (Search and Evaluation Costs) $\leftrightarrow$ Habit	81.281
BR (Brand Relationship) $\leftrightarrow$ RI (Retailer Indifference)	221.406
BR (Brand Relationship) $\leftrightarrow$ AA (Alternative Awareness)	65.144
BR (Brand Relationship) $\leftrightarrow$ AP (Alternative Preference)	194.753
BR (Brand Relationship) $\leftrightarrow$ Satisfaction	189.028
BR (Brand Relationship) $\leftrightarrow$ Loyalty	153.983
BR (Brand Relationship) $\leftrightarrow$ Habit	80.441
RI (Retailer Indifference) $\leftrightarrow$ Satisfaction	250.807
RI (Retailer Indifference) $\leftrightarrow$ Loyalty	115.030
RI (Retailer Indifference) $\leftrightarrow$ Habit	77.607
AP (Alternative Preference) $\leftrightarrow$ Satisfaction	136.779
AP (Alternative Preference) $\leftrightarrow$ Loyalty	141.879
AP (Alternative Preference) $\leftrightarrow$ Habit	148.853
AA (Alternative Awareness) $\leftrightarrow$ Satisfaction	66.590
AA (Alternative Awareness) $\leftrightarrow$ Loyalty	35.972
AA (Alternative Awareness) $\leftrightarrow$ Habit	50.863

\*( $\Delta DF=1$ ,  $p=0.000$ )

## 6.6 MULTI-SAMPLE CONFIRMATORY FACTOR ANALYSES (MCFA)

To reiterate, the researcher splits the sample randomly into two so that cross-validation can be undertaken. Up to this point, all applications are based on the calibration sample. This section reports MCFA procedures which involve both calibration and validation samples, where the central concern is whether or not components of the measurement models are invariant (i.e. equivalent) across both samples (Byrne 2010, p. 173; Hair *et al.* 2010, p. 759). In other words, this section addresses the issue of cross-validation, i.e. the researcher seeks evidence as to whether the scale items (measuring perceived switching costs, alternative attractiveness, satisfaction, loyalty and habit) operate equivalently (measurement invariance) across the two samples. Measurement invariance (or measurement equivalence) across the two samples provides *“a second confirmation of a measurement theory that survived initial testing”* and is evidence that the measurements used have been cross-validated via *“two-samples drawn from the same population”* (Hair *et al.* 2010, p. 759). It also means that the two samples can be combined for hypotheses testing, a process described in the next chapter.

Multi-sample confirmatory factor analyses (MCFA) (an extension of CFA) is used for the purpose of cross-validation (Chen, Sousa and West 2005; Cheung and Rensvold 2002, p. 235; Steenkamp and Baumgartner 1998). This

procedure involves “a six-step process of group comparison” (Hair *et al.* 2010, p. 759) to test a series of hierarchically nested models (Widaman and Reise 1997).

MCFA of invariant testing enables the structure of a model and/or its individual parameters to be tested for equivalence across groups or contexts. Traditionally, the likelihood ratio test (i.e. change in chi square value  $\Delta\chi^2$ ) is most frequently used for checking for model invariance (Jöreskog and Sörbom 2001), although many authors have revealed that differences in  $\chi^2$  also depend on sample size.

In MCFA, the  $\chi^2$  subtraction ( $\Delta\chi^2 = \chi^2_{\text{unconstrained}} - \chi^2_{\text{constrained}}$ ) result is tested against the critical t-value related to the difference in the degree of freedom (*df*). If  $\Delta\chi^2$  between the two models is statistically **not** significant, the two models (from our two samples) are equivalent in that any observed difference in the parameter values between the two samples cannot occur by chance (Byrne 2010; Marsh 1987). In other words, if the  $\Delta\chi^2$  between calibration and validation group models is **significant**, the sample should be treated as different; as such, the two samples should **not** be combined in further analysis.

However, as already mentioned, the  $\Delta\chi^2$  method has certain shortcomings, which have been widely discussed (Cheung and Rensvold 2002;



Fan and Sivo 2009; Meade *et al.* 2008). Just as with the chi-square tests of overall model fit, the  $\Delta\chi^2$  test is highly sensitive to sample size. As pointed out by Meade *et al.* (2008):

*“In large samples, power to detect even trivial differences in the properties of a measure across samples is extremely high, potentially leading to excessively conservative test of measurement invariance.”* (p. 568)

This has prompted others (e.g. Cheung and Rensvold 2002) to examine the changes in alternative fit index, particularly the CFI ( $\Delta\text{CFI}$ )<sup>43</sup>, as a better way to assess model invariance. According to Cheung and Rensvold (2002),  $\Delta\text{CFI}$  is unbiased by model complexity or sample size. They contend that the evidence for invariance is based on a difference in CFI values of no more than 0.01. While Byrne (2010, p. 221) agrees with this value, a recent study by Meade *et al.* (2008) proposes  $\Delta\text{CFI}$  values of  $\leq 0.02$  as an acceptable criterion for judging model invariance rather than Cheung-Rensvold’s more stringent threshold of  $\leq 0.01$ .

In this thesis, the results of both ( $\Delta\chi^2$  and  $\Delta\text{CFI}$ ) are used to determine model invariance using Cheung and Rensvold’s (2002) more stringent criterion of  $\Delta\text{CFI} \leq 0.01$ .

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<sup>43</sup>  $\Delta\text{CFI} = \text{CFI}_{\text{unconstrained}} - \text{CFI}_{\text{constrained}}$

The next subsection presents the invariance testing for perceived switching costs via multi-sample confirmatory analysis.

### 6.6.1 Testing Online Perceived Switching Costs Model Invariance

*Configural invariance (Model 1, Table 6-18):*

The first step involves testing the *configural invariance*. The main requirement of this most basic level of measurement invariance is that the number of latent factors and their structure are equal between calibration and validation groups (Chen *et al.* 2005, p. 474). For this, an unconstrained baseline CFA model of perceived switching costs (PSC) is specified, in which the data from both groups, calibration and validation, are estimated simultaneously (Widaman and Reise 1997) (Model 1, Table 6-18).

The overall fit related to Model 1 is found to be well-fitting across both samples:  $\chi^2$  statistics value is 515.349 (df = 331),  $p < 0.000$ , RMSEA is 0.031 (PCLOSE = 1.000), GFI is 0.919 and CFI is 0.962. These goodness-of-fit results, particularly the  $\chi^2$  and CFI values, are regarded as the baseline against which subsequent forms of invariance model testing are compared (Byrne 2010, p. 209; Cheung and Rensvold 2002).

**Table 6-18: Multiple-Sample Confirmatory Factor Analysis of Perceived Switching Costs across Calibration and Validation Groups**

Model No	Model description	Model Fit Measures						Nested Model	Model Differences			
		$\chi^2$	df	p-value	RMSEA	NNFI	CFI		$\Delta\chi^2$	$\Delta df$	Sig.	$\Delta CFI$
1	Configural model: No equality constraints imposed	515.349	331	.000	.031	.957	.962					
2	First-order factor loadings constrained equal	532.083	345	.000	.030	.958	.962	2 vs. 1	16.73	14	.271	nc
3	First and second-order factor loadings constrained equal	537.240	349	.000	.030	.958	.962	3 vs. 2	51.58	4	.271	nc
4	First and second-order factor loadings and variance constrained equal	537.247	350	.000	.030	.959	.962	4 vs. 3	0.007	1	.935	nc
5	First and second-order factor loadings, variance and disturbances of the first-order constrained equal	544.732	355	.000	.030	.959	.961	5 vs. 4	7.485	5	.187	0.001
6	First and second-order factor loadings, variance, disturbances of the first-order and residual variances of observed variables constrained equal	565.606	375	.000	.029	.961	.961	6 vs. 5	20.873	20	.405	nc

**Note:**  $\Delta\chi^2$ : differences in  $\chi^2$  values between models;  $\Delta df$ : differences in number of degrees of freedom between models;  $\Delta CFI$ : differences in CFI values between models; vs.: versus; nc: no change; If a between-group constraint is non-significant, then the parameter being evaluated does not vary between groups (Hair, 2010. p. 763).

*Invariance for first-order factor loadings of PSC (Model 2):*

Having established a good fit for the configural model (Model 1), the next test is concerns with the equivalence of factor loadings. This test is to determine whether the loading of each item on the underlying factor is invariance across both sample groups. According to (Chen *et al.* 2005, p. 474), when this invariance is met, “*the unit of the measurement of the underlying factor is identical*” across both groups. Here, all of the first-order item-factor loadings are set to be equal across groups.

As presented in Table 6-18 (Model 2), the  $\chi^2$  difference test is found to be not significant ( $\Delta\chi^2_{(14)} = 16.73$ , *ns*). With regards to the Cheung-Rensvold guidelines of  $\Delta CFI \leq 0.01$  (Cheung and Rensvold 2002, p. 251), there is no difference whatsoever in the CFI between the two groups, lending strong support for the equivalence of the first-order factor loadings ( $\lambda_s$ ) between the calibration and validation groups.

*Invariance of second-order factor loadings of PSC (Model 3; Table 6-18):*

This allows the researcher to proceed with the next level of invariance test concerning the second-order factor loadings ( $\gamma_s$ ). For this purpose, all first and second-order factor loadings are set to be equal across samples. This invariance testing is confined within Model 2. The difference in the  $\chi^2$  values is also found to be non-significant ( $\Delta\chi^2_{(4)} = 51.58$ , *ns*), again, with no difference

in CFI. These results indicate the invariance of the second-order factor loadings across calibration and validation samples.

*Invariance of second-order factor variance of PSC (Model 4)*

In terms of this form of model invariance test, Model 4 is nested within Model 3, with all the first- and second-order factor loadings and the variance of the second-order factor constrained to equal. The results demonstrate that the second-order factor (PSC in Figure 6-2) exhibits the same variance across groups. The change in the values of  $\chi^2$  between Model 3 and 4 is not significant (Model 4:  $\Delta\chi^2_{(1)} = 0.007, ns$ ). Moreover, there is no change in the CFI (0.96) between the two models.

*Invariance of disturbances of the first-order factors of PSC (Model 5):*

With respect to the testing of this type of model invariance, all first-order loadings, all second-order loadings, the variance of the second-order factor and disturbances of the first-order factors are set to be equal across groups (Model 5). The  $\chi^2$  test between Model 4 and 5 is found to be not significant (Model 5;  $\Delta\chi^2_{(5)} = 7.485, ns$ ). As the change of the CFI values ( $\Delta CFI=0.001$ ) is within the threshold of Cheung-Rensvold's 0.1, it can be concluded that there are no substantial variations in the disturbances across calibration and validation groups.

*Invariance of residual variance of indicators of PSC (Model 6):*

Finally, in terms of invariance testing for observed variables' residual variances, the result also indicates invariance of the calibration and validation groups. The difference in the  $\chi^2$  values is also insignificant (Model 6:  $\Delta\chi^2_{(20)} = 20.873$ , *ns*). In addition, with regards to Cheung-Rensvold's criteria of  $\Delta\text{CFI} \leq 0.01$ , once again, there is no change in the CFI between Model 6 and Model 5 (Table 6-18).

Based on these results, it can be concluded that for perceived switching costs and their underlying factors, all factor loadings (first- and second-order), second-order factor variance, factor residual variances and measurement disturbances operate equivalently for the calibration and validation sample groups. In addition, the invariance of Model 5 and Model 6 demonstrate equal reliability both for the indicators and for the complete measuring instrument across groups (Blunch 2008).

**Table 6-19: Multiple-Sample Confirmatory Factor Analysis of Alternative Attractiveness across Calibration and Validation Groups**

Model No	Model description	Model Fit Measures						Nested Model	Model Differences			
		$\chi^2$	df	p-value	RMSEA	NNFI	CFI		$\Delta\chi^2$	$\Delta$ df	Sig.	$\Delta$ CFI
1	Configural model: No equality constraints imposed	19.286	12	.082	.032	.985	.994					
2	First-order factor loadings constrained equal	21.377	15	.125	.027	.989	.995	2 vs. 1	2.090	3	.554	0.001
3	First and second-order factor loadings constrained equal	22.000	17	.185	.022	.993	.996	3 vs. 2	.624	2	.732	0.001
4	First and second-order factor loadings and variance constrained equal	22.289	18	.219	.020	.994	.996	4 vs. 3	.288	1	.591	nc
5	First and second-order factor loadings, variance and disturbances of the first-order constrained equal	30.576	21	.081	.028	.989	.992	5 vs. 4	8.287	3	.040	0.004
6	First and second-order factor loadings, variance, disturbances of the first-order and residual variances of observed variables constrained equal	42.691	27	.028	.031	.986	.987	6 vs. 5	12.115	6	.059	0.005

**Note:**  $\Delta\chi^2$ : differences in  $\chi^2$  values between models;  $\Delta$ df: differences in number of degrees of freedom between models;  $\Delta$ CFI: differences in CFI values between models; vs.: versus.; nc: no change.

### 6.6.2 Testing Alternative Attractiveness Model Invariance

The next step is to cross-validate the alternative attractiveness (ATA) measurement instrument across the second sample, i.e. the validation sample. Again, a series of MCFA is performed to assess the different forms of model invariance in order to determine the stability of the instrument across calibration and validation groups. The results are presented in Table 6-19 above.

#### *Configural invariance (Model 1):*

Similar to the process in testing PSC, a second-order CFA model of ATA is used, in which the data for the two groups, calibration and validation, are analysed simultaneously and estimated via AMOS 18 (Byrne 2010, p. 209).

The fit of the configural model is good and well-fitting across the two groups:  $\chi^2 = 19.286$  ( $p = 0.082$ );  $df = 12$ ,  $(\chi^2/df) = 1.607$ ,  $RMSEA = 0.032$  ( $PCLOSE = .863$ );  $GFI = 0.989$ ;  $CFI = 0.994$ ,  $AGFI = 0.962$ ;  $NNFI = 0.985$ .

#### *Invariance of the first-order factor loadings of ATA (Model 2; Table 6-19):*

Again, this type of invariance testing requires Model 2 to be nested within the configural Model 1. The nested models are estimated with all the first-order factor loadings constrained to equal across groups. The findings support the assumption that in terms of factor loadings, the two sample



groups are invariant. The difference in  $\chi^2$  is found to be non-significant ( $\Delta\chi^2_{(3)} = 2.090$ ). The difference in the CFI values of the two groups ( $\Delta\text{CFI}=0.0001$ ) is also below Cheung-Rensvold's threshold of 0.01. Having established this level of invariance, the next model invariance test focuses on the stability of the second-order factor loadings.

*Invariance of second-order factor loadings of ATA (Model 3; Table 6-19):*

The results of the  $\chi^2$  difference test and the CFI also lend support to this level of model invariance. As presented in Table 6-19, the  $\chi^2$  difference test is found to be non-significant ( $\Delta\chi^2_{(2)} = 0.624$ , ns), with only negligible (0.001) difference in the CFI values between Model 3 and Model 2.

*Invariance of second-order factor variance of ATA (Model 4):*

Once again, in terms of the  $\chi^2$  difference test, a non-significant result is found ( $\Delta\chi^2_{(1)} = 0.288$ , ns). Furthermore, no difference is found in terms of the CFI values between the two models. These results lend support to the view that the second-order factor variance is invariant between the calibration and validation groups.

*Invariance of disturbances of the first-order factor of ATA (Model 5; Table 6-19):*

To recap, in testing this level of factorial invariance, all first- and second-order factor loadings, second-order factor variance and disturbances

of the first-order factors are constrained equal for both groups. However, the  $\chi^2$  difference test between Model 5 and Model 4 is found to be significant ( $\Delta\chi^2_{(3)} = 8.287, p < 0.05$ ). Given that the CFI difference ( $\Delta\text{CFI} = 0.004$ ) remains within Cheung-Rensvold's guideline of 0.01, it can be concluded that there is no discernible variation in the disturbances of the first-order factors between calibration and validation groups (Byrne 2010; Chen *et al.* 2005; Cheung and Rensvold 2002).

*Invariance of residual variance of indicators of ATA (Model 6; Table 6-19):*

However, with respect to this level of model invariance testing, the  $\chi^2$  difference test between Model 6 and Model 5 is found to be non-significant ( $\Delta\chi^2_{(6)} = 12.115, ns$ ). The change in CFI is also within the Cheung-Rensvold's limit of 0.01. As such, based on these results, it can be concluded that the residual variance of the observed variables are invariant across the calibration and validation groups.

### **6.6.3 Testing Satisfaction, Loyalty and Habit Model Invariance**

Presented next is analysis of the extent to which the measurement instruments for satisfaction, loyalty and habit are replicated across validation sample.

*Configural invariance (Model 1; Table 6-20):*

The MCFA begins with a test of the configural model, whereby CFA models of both calibration and validation groups are estimated simultaneously. To reiterate, the interest here is mainly in the degree to which the same number of factors optimally represent the data for both groups. Hence, there is no imposition of equality constraints across groups and the evaluation is largely based on the model fit (Byrne 2010). As presented in Table 6-20 below, the results of the configural model provide evidence of good fit in terms of the model's representation of the two sample groups:  $\chi^2 = 58.195$  ( $p = 0.006$ );  $df = 34$ ,  $(\chi^2/df) = 1.712$ ,  $RMSEA = 0.035$  ( $PCLOSE = .954$ );  $GFI = 0.976$ ;  $CFI = 0.985$ ,  $AGFI = 0.949$ ;  $NNFI = 0.975$ .

Having achieved adequate fit of the model to the data, the next test, detailed below, is with respect to whether factor loadings are equivalent across the calibration and validation groups.

**Table 6-20: Multiple-Sample Confirmatory Factor Analysis of Satisfaction, Loyalty and Habit Constructs across Calibration and Validation Groups**

Model No	Model Description	Model Fit Measures						Nested Model	Model Differences			
		$\chi^2$	df	p-value	RMSEA	NNFI	CFI		$\Delta\chi^2$	$\Delta df$	Sig.	$\Delta CFI$
1	Configural model; No equality constraints imposed	58.195	34	.006	.035	.975	.985					
2	Factor loadings constrained equal	69.629	39	.002	.037	.972	.981	2 vs. 1	11.434	5	.043	.004
3	Factor loadings and factor variances / covariances constrained equal	75.473	45	.003	.034	.976	.981	3 vs. 2	5.844	6	.441	nc
4	Factor loadings, factor variances / covariances and residuals of observed variables constrained equal	102.317	53	.000	.040	.967	.969	4 vs. 3	26.844	8	.001	.0012

**Note:**  $\Delta\chi^2$  = differences in  $\chi^2$  values between models;  $\Delta df$  = differences in number of degrees of freedom between models;  $\Delta CFI$  = differences in CFI values between models; vs. = versus; nc = no change.

*Factor loadings invariance for Satisfaction, Loyalty and Habit scales (Model 2; Table 6-20):*

As presented in Table 6-20 above (Model 2), the goodness-of-fit statistics from the test of invariant factor loadings provide confirmation of a well-fitting model. In spite of the fact that the difference in  $\chi^2$  values between Model 2 and the configural Model 1 is statistically significant ( $\Delta\chi^2_{(5)} = 11.434$ ,  $p < 0.05$ ), the change in the CFI values does not surpass the 0.01 limit of Cheung-Rensvold ( $\Delta CFI = .004$ ).

Based on the criterion of Cheung-Rensvold, it is concluded that the factor loadings operate equivalently across calibration and validation samples. The subsequent model invariance test, detailed below, pertains to variances and covariances of factors.

*Invariance of factor variances and covariances for Satisfaction, Loyalty and Habit scales (Model 3; Table 6-20):*

The findings also provide evidence for the equivalence of all factor variances and covariances across calibration and validation groups. Model 3, in which all factor loadings and factor variances and covariances are held equal, also yield excellent GIF values (Table 6-20). The difference in  $\chi^2$  values is found to be not statistically significant ( $\Delta\chi^2_{(6)} = 5.844$ , ns) and there is no difference between the CFI values of Model 3 and Model 4.

These results indicate that, the factor variances and covariances are invariant across the calibration and validation samples. Given evidence of invariance at this level, the subsequent test relates to measurement residuals.

*Invariance of indicators' residuals for Satisfaction, Loyalty and Habit scales (Model 4; Table 6-20):*

As reported in Table 6-20, the overall model fit statistics of Model 4 are within the generally accepted thresholds. However, the  $\chi^2$  difference test between Model 4 and Model 3 is found to be statistically significant ( $\Delta\chi^2_{(8)} = 26.844, p < 0.05$ ). However, the  $\Delta CFI$  value of 0.001 indicates that there is no substantial different in CFI. Therefore, it is concluded that there is no appreciable difference in the residuals between the calibration and validation samples.

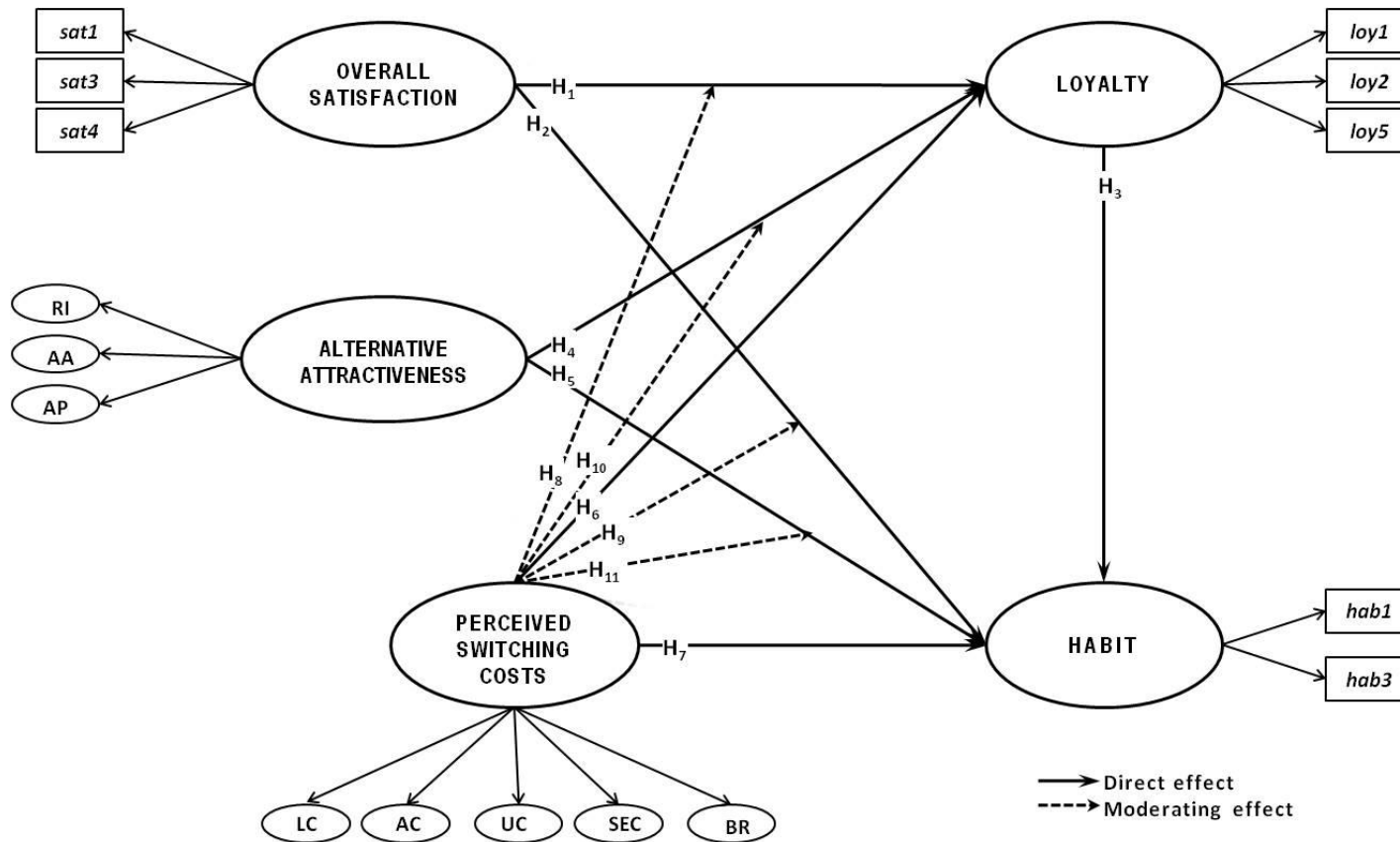
## 6.7 SUMMARY

This chapter has presented and described the process of measurement model assessments in the study. The measurement items of all constructs have been examined through the combination of exploratory and confirmatory factor analyses to test construct dimensionality, convergent validity, reliability and discriminant validity. The results are satisfying, even in view of the need to drop some items (12 out of 45 items) from further analyses. This process has uncovered and confirmed two higher-order structures; namely, *perceived*

*switching costs* and *attractive alternatives*. The measurement invariance testing process via multi-sample confirmatory factor analyses has demonstrated that all first- and second-order factor loadings, variances, covariances and residuals of the five constructs (and their sub-constructs) were equivalent across the calibration and validation samples. Given this adequate level of invariance, the two samples will be combined in further analyses.

The next phase of data analysis constitutes the estimation of the structural model. This also serves as the assessment of nomological validity. The proposed structural model, presented in Figure 6-3, follows the partial aggregation approach and 'level of abstraction' adopted by the present analysis (Bagozzi and Edwards 1998).

Figure 6-3: Proposed Structural Model



**Note:** RI: Retailer Indifference; AA: Alternative Awareness; AP: Alternative Preference; LC: Learning Costs; UC: Uncertainty Costs; SEC: Search and Evaluation Costs; BR: Brand Relationship



**Figure 6-4: Hypotheses to be tested**

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H<sub>1</sub>: Satisfaction will have a positive influence on Loyalty.

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H<sub>2</sub>: Satisfaction will have a positive influence on Habit.

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H<sub>3</sub>: Loyalty will have a positive influence on Habit.

---

H<sub>4</sub>: Alternative Attractiveness will have a negative influence on Loyalty.

---

H<sub>5</sub>: Alternative Attractiveness will have a negative influence on Habit.

---

H<sub>6</sub>: Perceived Switching Costs will have a positive influence on Loyalty.

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H<sub>7</sub>: Perceived Switching Costs will have a positive influence on Habit.

---

H<sub>8</sub>: Perceived Switching Costs will moderate the relationship between  
Satisfaction and Loyalty.

---

H<sub>9</sub>: Perceived Switching Costs will moderate the relationship between  
Satisfaction and Habit.

---

H<sub>10</sub>: Perceived Switching Costs will moderate the relationship between  
Alternative Attractiveness and Loyalty.

---

H<sub>11</sub>: Perceived Switching Costs will moderate the relationship between  
Alternative Attractiveness and Habit.

---

## Chapter 7

### DATA ANALYSIS III – ASSESSMENT OF STRUCTURAL MODEL

#### 7.1 INTRODUCTION

This chapter describes the second phase of the data analysis concerning the structural model.

#### 7.2 ASSESSMENT OF STRUCTURAL MODEL

The structural model with the path coefficient results for all the 11 hypotheses tested is depicted in Figure 7-1. A hypothesis is supported if the parameter estimate is significant and has the predicted sign. In the present analysis, both one-tailed and two-tailed significance testing are utilised. In particular, one-tailed significance levels are used to test  $H_1$  to  $H_7$ , given the fact that those hypotheses have an *explicitly predicted direction* of the effect of one construct on another (Field 2005, p. 123). Conversely, two-tailed significance levels are employed for testing  $H_7$  to  $H_{11}$ , where all the interaction effects in the model are hypothesised.

For *one-tailed* significance levels, the critical value of  $t$  would thus be  $\pm 1.282$  for an alpha level of 0.1 (weakly significant),  $\pm 1.645$  for an alpha level of 0.05 (moderately significant) and  $\pm 2.326$  for an alpha level of 0.01 (strongly significant). In contrast, with respect to *two-tailed* tests, the critical t-values of

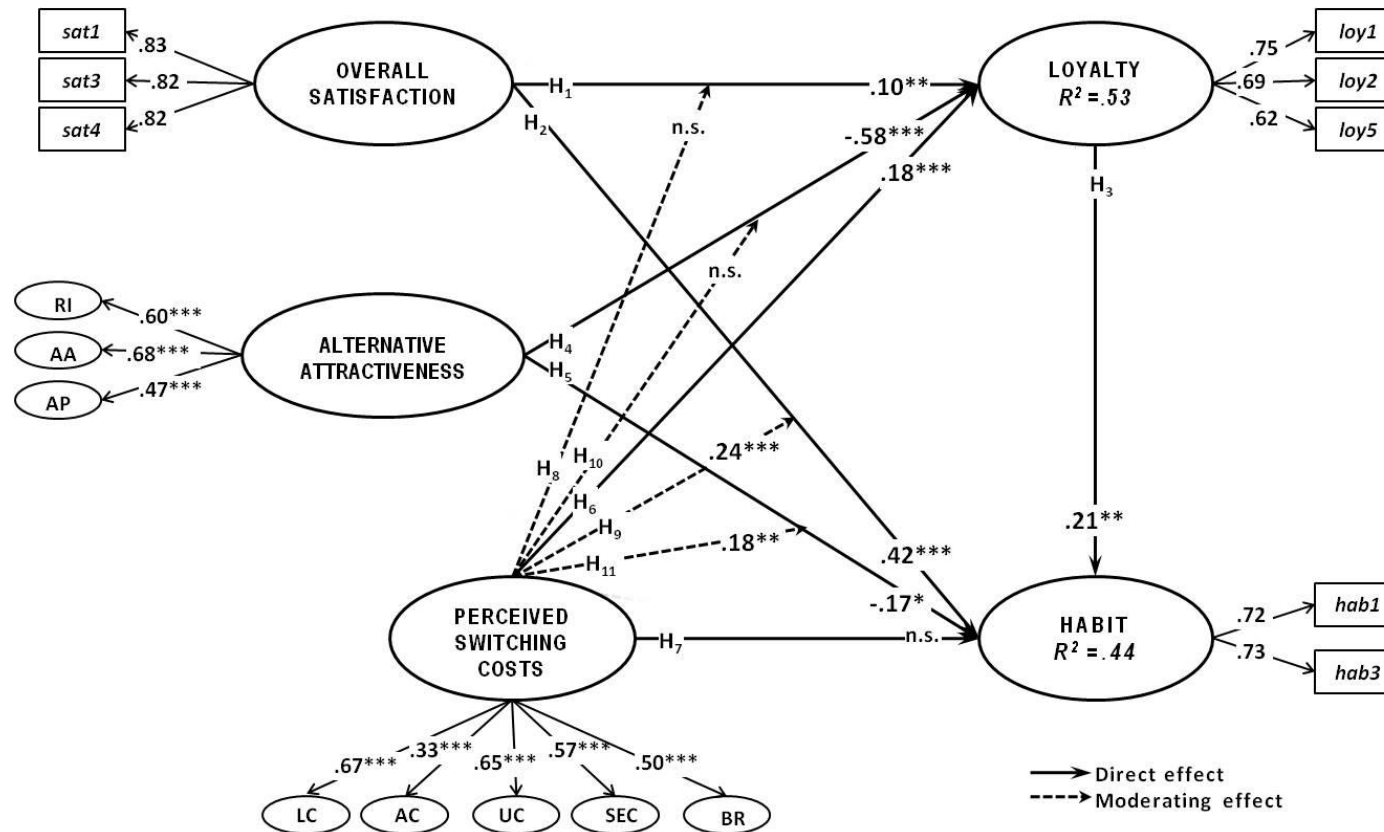
$\pm 1.645$ ,  $\pm 1.960$ ,  $\pm 2.576$  would correspond to alpha levels of 0.1, 0.05 and 0.01 respectively (Harnett and Murphy 1985; Schumacker and Lomax 2004, p. 474).

To begin with, in terms of overall fit of the structural model, the indices are all within the thresholds indicating acceptable fit:  $\chi^2 = 1743.1$  ( $p = 0.000$ ),  $df = 884$ ,  $\chi^2/df = 1.972$ ,  $RMSEA = 0.040$ ,  $GFI = 0.890$ ,  $NNFI = 0.99$ ,  $CFI = 0.929$ ,  $SRMR = 0.057$ . Moving on to the sign of the parameter estimates<sup>44</sup> representing the hypotheses, the result suggests that all signs of associations between the constructs are in congruence with the hypothesised relationships and the literature. This provides support for the nomological validity of all constructs forming the model. The square multiple correlations for the structural equation are 0.53 (loyalty) and 0.44 (habit), suggesting that a somewhat respectable and acceptable amount of variance of the endogenous constructs has been explained by the respective proposed predictors (see Figure 7-1 and Table 7-1).

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<sup>44</sup> In this thesis, 'parameter estimate' and 'path coefficient' are used interchangeably.

Figure 7-1: Proposed Structural Model with Path Estimates and R<sup>2</sup> Values (in *italic*) - N=590



$\chi^2 = 1743.088$  ( $p = 0.000$ );  $df = 884$ , ( $\chi^2/df$ ) = 1.972, RMSEA = .040 (PCLOSE = 1.000); GFI = .890; CFI = .929, NNFI = .917; SRMR = .057

**Note:** \*\*\* $p < 0.01$ ; \*\* $p < 0.05$ ; \* $p < 0.1$ ; n.s.=not significant; RI: Retailer Indifference; AA: Alternative Awareness; AP: Alternative Preference; LC: Learning Costs; UC: Uncertainty Costs; SEC: Search and Evaluation Costs; BR: Brand Relationship.

Table 7-1: Results for Structural Model Assessment

Hypothesised Parameter	Std. $\beta$	SE	t-value	Sig.	R <sup>2</sup>	Hyp.	Result
SAT → LOYALTY	.10	.062	1.899	.029		H <sub>1</sub>	Supported
ATA → LOYALTY	-.58	.196	-5.486	.000		H <sub>4</sub>	Supported
PSC → LOYALTY	.18	.109	2.338	.001		H <sub>6</sub>	Supported
SAT*PSC → LOYALTY	.04	.174	0.599	.589		H <sub>8</sub>	Not Supp.
ATA*PSC → LOYALTY	.01	.195	0.119	.905		H <sub>10</sub>	Not Supp.
					<b>.53</b>		
SAT → HABIT	.42	.068	7.418	.001		H <sub>2</sub>	Supported
LOYALTY → HABIT	.21	.098	2.164	.015		H <sub>3</sub>	Supported
ATA → HABIT	-.17	.213	-1.512	.066		H <sub>5</sub>	Part. Supp.
PSC → HABIT	-.01	.108	-0.132	.896		H <sub>7</sub>	Not Supp.
SAT*PSC → HABIT	.24	.207	2.810	.005		H <sub>9</sub>	Supported
ATA*PSC → HABIT	.18	.230	2.180	.029		H <sub>11</sub>	Supported
					<b>.44</b>		

**Note:** Not Supp.: Not supported; Part. Supp.: Partially supported; SAT: Satisfaction; PSC: Perceived switching costs; ATA: Perceived alternative attractiveness

### 7.2.1 Direct Effect

All the direct effects hypothesised and tested by the structural model (Figure 7-1), namely; Satisfaction → Loyalty (H<sub>1</sub>), Satisfaction → Habit (H<sub>2</sub>), Loyalty → Habit (H<sub>3</sub>), Alternative Attractiveness → Loyalty (H<sub>4</sub>), Alternative Attractiveness → Habit (H<sub>5</sub>) and Perceived Switching Costs → Loyalty (H<sub>6</sub>), appear to be significant and closely in line with the literature; *with exception* of the path correspond to Perceived Switching Costs → Habit (H<sub>7</sub>).

Indeed, as hypothesised, satisfaction acts as positive predictor of loyalty and habit. The statistically significant and positive path coefficients between satisfaction and loyalty on habit provide support for H<sub>1</sub> and H<sub>2</sub> ( $p = 0.029$  and  $p = 0.000$  respectively, one-tailed). In addition, as hypothesised, loyalty contributes positively and significantly to the fostering of habit ( $p = 0.015$ , one- tailed). H<sub>3</sub> is therefore supported. As reflected by the strong and highly significant negative relationship between alternative attractiveness and loyalty, alternative attractiveness acts as an important driver in reducing loyalty. Therefore, H<sub>4</sub> is also established. Furthermore, the result suggests that, as hypothesised, alternative attractiveness acts as a determinant of habit. The link is also statistically significant but only at the 10 per cent level ( $p = 0.066$ , one tailed). As mentioned earlier, this is considered as a weak significance. As such, H<sub>5</sub> is partially supported. Finally, despite the possibility of positive association between switching costs and habit as hypothesised, this linkage is not statistically significant. H<sub>7</sub> is, thus, not supported.

The subsequent section presents the result of the hypothesised interaction<sup>45</sup> effects.

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<sup>45</sup> In this thesis, interaction and moderation are used interchangeably.

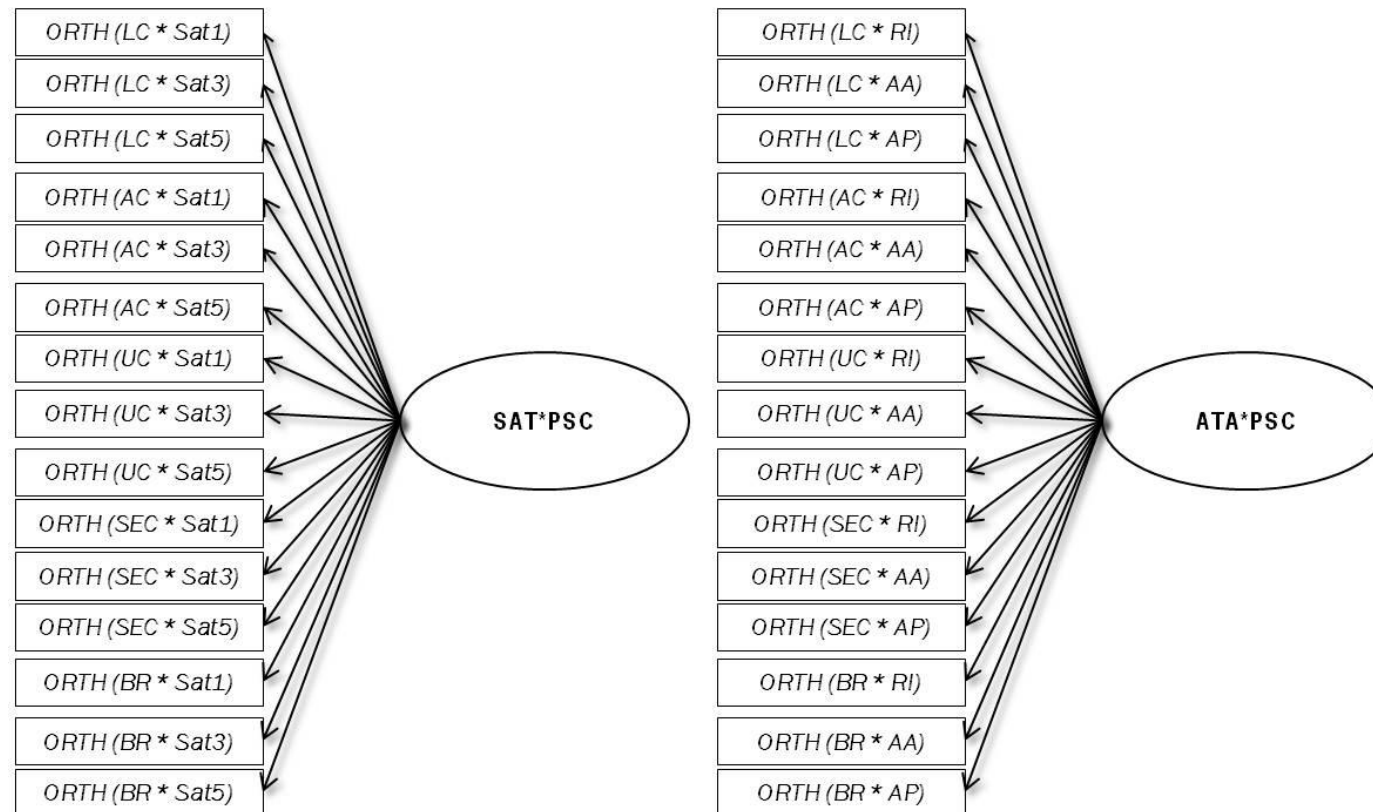
### 7.2.2 Moderation Effect

As mentioned in the methodology chapter, the hypothesised interaction effects in the model are tested via the orthogonalisation or residual centring approach posited by Little, Bovaird and Widaman (2006). This latest procedure allows the researcher, to a large extent, to eliminate multicollinearity issues that have, in the past, plagued many efforts to model interactions via SEM. Another major advantage of Little *et al.*'s (2006) method is that it uses all possible information of the manifest variables to test the effect (in contrast to previous methods, such as those of Jaccard and Wan 1995; Jöreskog and Yang 1996; Mathieu *et al.* 1992; Ping 1995)<sup>46</sup>.

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<sup>46</sup> The suggestions of the other approaches to use either a single indicator or a reduced number of indicators leads to a loss of information and the risk of not finding any effect. They contrast with Little *et al.*'s (2006) approach, which uses all possible cross-products of the latent variables to create the interaction latent product.

Figure 7-2: Orthogonalised Indicators for Modelling Interaction Effects



**NOTES-** SAT: Satisfaction; PSC: Perceived switching costs; ATA: Perceived alternative attractiveness; LC: Learning costs; AC: Artificial costs; UC: Uncertainty costs; SEC: Search and evaluation costs; BR: Brand relationship loss; RI: Retailer indifference; AA: Alternative awareness; AP: Alternative preference.



Following strictly Little *et al.*'s (2006) approach to creating orthogonalised latent interaction variables, 'Sat\*PSC' and 'ATA\*PSC' variables are created via four steps:

1) Construct SAT\*PSC:

- a) 15 product terms are computed between the indicators of Satisfaction (i.e., SAT1, SAT2 and SAT3) and the variables of PSC (i.e., LC, AC, UC, SEC and BR).
- b) 15 multiple regression analyses are then performed, with one of the 15 product terms computed in Step 'a)' being used in each analysis as the dependent variable, and the satisfaction indicators and PSC variables as independent variables.
- c) The residuals of the 15 regressions are saved to the data set.
- d) The standardised residuals are used as manifest variables of the latent construct 'SAT\*PSC' (see Figure 7-2 above).

2) Construct ATA\*PSC (the above-detailed processes being repeated for this construct as well):

- a) 15 product terms are computed between the three ATA variables (i.e., RI, AA and AP) and the PSC variables (i.e., LC, AC, UC, SEC and BR).
- b) 15 multiple regression analyses are performed, with one of the 15 products computed in the first step being used in each analysis as the

dependent variable, and all the ATA and PSC variables as independent variables.

- c) The residuals of the 15 regressions are saved to the data set.
- d) The standardised residuals are used as manifest variables of 'ATA\*PSC' (see again Figure 7-2).

Compared to the standard mean-centred approach (e.g. Aiken & West, 1991), this approach ensures complete orthogonality between the independent and the interaction variable and hence, leads to identical inferences and better fitting results (Little *et al.* 2006; Marsh *et al.* 2007).

The results indicate that the latent interactions Sat\*PSC and ATA\*PSC show positive and statistically significant path coefficients for habit ( $\beta = 0.24$ ,  $p = 0.005$  and  $\beta = 0.18$ ,  $p = 0.029$  respectively, two-tailed). Therefore, H<sub>9</sub> and H<sub>11</sub> are supported. This shows, as expected and hypothesised, that switching costs moderates the relationship between satisfaction and habit as well as the relationship between alternative attractiveness and habit.

The extension of social exchange theory to include Habit in the model as an endogenous construct, coupled with empirical evidence of significant positive interaction effects of online perceived switching costs on Satisfaction

→ Habit link as well as, Alternative attractiveness → Habit link, may be regarded as two of this study's main contributions to the literature.

### **7.2.3 Mediation Effect**

Next, all the possible indirect (mediated) effects in the model are examined in terms of their direction of effects, magnitude and significance level.

With reference to the model, there are three possible indirect effects; namely:

- Satisfaction → Loyalty → Habit; where the relationship between satisfaction and habit is possibly mediated by loyalty.
- Alternative Attractiveness → Loyalty → Habit; where the relationship between alternative attractiveness and habit is possibly mediated by Loyalty.
- Perceived Switching Costs → Loyalty → Habit; where the relationship between perceived switching costs and habit is possibly mediated by loyalty.

For this purpose, the bootstrap<sup>47</sup> re-sampling procedure (Efron 1979, 1987; Efron and Tibshirani 1982; Henseler 2010) is conducted via AMOS with bias-corrected bootstrap confidence intervals requested, to estimate the standard errors, confidence intervals and significance levels of these effects<sup>48</sup> (Hayes 2009; Preacher and Hayes 2008; Shrout and Bolger 2002; Zhao, Lynch and Chen 2010). The SEM tool with the bootstrap procedure (rather than the Sobel test<sup>49</sup>) is the most robust method to date for producing unbiased estimation of the mediating effect of latent variables (Cheung and Lau 2008; Kenny 2008).

Table 7-2 provides the results from the bootstrapping procedure, describing the estimated direct, indirect and total effect between these constructs. For instance, the standardised indirect effect of satisfaction on habit through loyalty is estimated as the product of the standardised

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<sup>47</sup> Bootstrapping is a non-parametric approach relevant to both covariance- and variance-based structural equation modelling as a tool to provide the confidence interval for estimates as the basis for statistical inference (Henseler, 2010).

<sup>48</sup> There is no clear recommendation in the literature about the number of bootstrap samples needed. According to Efron and Tibshirani (1998, p. 52), "*B=25 should be informative, B=50 is often good, and more often than not B=200 are needed to estimate the standard error*". However, the amount of re-sampling found in recent research has increased due to increased computing power (Henseler, 2010). For instance, Hesterberg *et al.* (2003) utilises 1000 re-samplings while Henseler *et al.* (2009) suggest up to B=5000 sample replications for a better solution. Following the recommendation of Bido (2008), this study reported results on 1000 re-samplings because there were no apparent changes to the t-values between sample sizes of 500, 1000 and 5000 in the research. In other words, the t-values become stable at 500 bootstrap samples.

<sup>49</sup> Distributional property of mediational effects is usually non-normal. While the Sobel test assumes this, it is not the best approach to compute the confidence interval for indirect effects (Henseler, 2010).

coefficients for paths Satisfaction → Loyalty and Loyalty → Habit, i.e.  $0.10(0.21) = 0.021$ . This shows that satisfaction has only a partial direct effect on loyalty (0.10) because 0.21 of this is transferred to habit. The result of 0.021 means that habit level is predicted to rise by about 0.02 standard deviations for every one full standard deviation (SD) increase in satisfaction through habit's initial impact on loyalty. Total effects, on the other hand, are the sum of all direct and indirect effects. For instance, the standardised total effect of satisfaction on habit is the sum of its direct effect (0.445) and indirect effect via loyalty (0.021); that is 0.424 taken together. This means that when satisfaction increases by one SD, habit is predicted to be stronger by 0.424 SD through all the direct and indirect effects between these constructs. However, no loyalty mediation is found to influence the link between satisfaction and habit at the 0.1 confidence level ( $p = 0.067$ , one-tailed).

**Table 7-2: Decomposition of Structural Effects**

Effect on HABIT	Standardised $\beta$	SE	Lower Bound	Upper Bound	Sig. (one-tailed)
<b>SATISFACTION</b>					
Direct Effect	.445	.066	.319	.536	.000
Indirect Effect (via Loyalty)	.021	.021	-.001	.066	.067
Total Effect	.424	.065	.340	.553	.004
<b>ALTERNATIVE ATTRACTIVENESS</b>					
Direct Effect	-.170	.137	-.360	.095	.074
Indirect Effect (via Loyalty)	-.120	.075	-.269	-.023	.004
Total Effect	-.290	.100	-.414	-.120	.001
<b>PERCEIVED SWITCHING COSTS</b>					
Direct Effect	-.010	.083	-.119	.169	.469
Indirect Effect (via Loyalty)	.037	.035	-.006	.116	.071
Total Effect	.028	.081	-.084	.553	.295

**Note:** All parameters are estimated through the bootstrapping procedure (B=1000)

It can be observed that the negative direct effect of alternative attractiveness on habit is statistically significant only at the 10 per cent confidence level ( $p = 0.074$ , one-tailed). As previously described, this is considered as a 'weakly significant' effect (Harnett and Murphy 1985). However, the indirect (mediated) effect between these constructs via loyalty is statistically significant at the 0.1 level ( $p = 0.004$  one-tailed). This result provides evidence of substantial mediational effect (Baron and Kenny 1986, p. 1176; Kline 2005, p. 128): Alternative attractiveness  $\rightarrow$  Loyalty  $\rightarrow$  Habit, i.e. the relationship between alternative attractiveness and habit is mediated to a

great extent by loyalty. In other words, the mechanism of the association of alternative attractiveness on habit is largely indirect via loyalty. As shown in Table 7-2, the indirect (mediated) effect of alternative attractiveness on habit is -0.12; i.e., because of the mediated effect of loyalty on the alternative attractiveness and habit link, an increase of alternative attractiveness by one SD predicts a reduction of habit by 0.12 SD. In addition, the effect of alternative attractiveness on habit mediated by loyalty lies between -0.269 (lower-bound) and -0.023 (upper-bound) and this effect is negative. This empirical evidence of substantial mediated effect of loyalty on alternative attractiveness and habit link is another contribution of this study to the literature.

Furthermore, the total effect of alternative attractiveness on habit is significant ( $p = 0.001$ ; one-tailed), showing the importance of alternative attractiveness as a key inhibitor of habit formation either directly or mediated through loyalty. Although the link of Loyalty  $\rightarrow$  Habit may be positive, the overall total effect of Alternative attractiveness  $\rightarrow$  Habit via Loyalty is certainly negative and significant. More specifically, as described in Table 7-2, for every increase of alternative attractiveness by one SD, habit is predicted to decrease by 0.29 SD, through the entire presumed indirect or direct causal link between these constructs in the model.

With respect to the perceived switching costs construct, Table 7-2 shows that its direct, indirect and total effects on habit are not statistically significant. As such, no mediation effect of loyalty is found on the link between switching costs and habit. Indeed, as shown in Subsection 7.2.2 switching costs has found to have a more of a catalytic role in the model especially in influencing or strengthening the relationship between satisfaction and habit. This will be discussed in greater detail in Chapter 8.

### **7.3 SUMMARY**

This chapter is a continuation of the previous chapter on the measurement model, and has discussed in three parts the structural model utilised in this thesis. The first part examined the direct hypothesised relationships between constructs. The second part of the chapter focused on the moderation effects hypothesised. Finally, examination of possible mediation effects among relationships was presented in the final part of the chapter. Drawing upon the findings reported in this chapter, the next chapter attempts to further discuss these findings in relation to the research objectives and hypotheses formulated in earlier chapters.



## **Chapter 8**

### **DISCUSSION OF RESEARCH FINDINGS**

#### **8.1 INTRODUCTION**

The previous chapter presented in detail the results of analysis conducted to test the identified hypotheses in the research. Based on the research objectives outlined in Chapter 1, this section discusses the research findings associated with the objectives, which, in turn, are the basis for the hypotheses tested in Chapter 6 and 7.

The present section is divided into three main parts. The first part begins with the research synopsis and summarisation of research objectives. The second part provides discussion of the underlying dimensions of perceived switching costs unearthed in the exploratory and confirmatory factor analyses. The third part proceeds with discussion of the findings of the hypotheses tests which were undertaken using structural equation modelling. The final part highlights the summary of the findings.

#### **8.2 SYNOPSIS OF RESEARCH**

The investment model from the social exchange theory contends that individuals who are strongly committed to a personal relationship are those who are highly satisfied with it, have incurred a high amount of investment in

the relationship and feel that there are not many quality alternatives available to replace the existing relationship. In the marketing literature, investment is closely synonymous with the concept of switching costs or transaction costs, while commitment is strongly related to the concept of loyalty. Following the work of Jones *et al.* (2000), this research examines the role of two types of switching barriers; namely, perceived switching costs and perceived alternative attractiveness.

To summarise, the main objective of this research is to examine the influence of switching barriers as perceived by customers on pure-play e-retailers' customer retention in terms of predicting: 1) customer loyalty; and 2) habitual purchasing behaviour towards their chosen pure-play e-retailer. The specific objectives of this research are three-fold. First, the study aims to identify and measure different types of switching cost dimensions relevant to customer relationships with e-retailers. Second, the research seeks empirically to investigate the extent to which the overall perceived online switching costs moderate the impact of the antecedent factors on loyalty and habitual purchasing towards the e-retailer. The third objective is to examine the role of habit as the ultimate dependant construct in the structural model. Habit is a crucial variable in the attitude and behaviour linkage theories although empirical research of it remains relatively limited in the field of marketing.

In order to accomplish these objectives, the social exchange perspective from the social psychology area of literature is used as the foundation of the study. Social exchange theory offers established linkages between constructs in the structural model. In addition, measurement scales for the research instrument have been established and validated (Anderson and Gerbing 1988; Anderson *et al.* 1987; Churchill 1979; Churchill and Iacobucci 2005; Gerbing and Anderson 1988) in order to fulfil the above-stated objectives, and the most recent approach by Little *et al.* (2006) to empirically analyse moderating effects has been utilised.

The resultant measures have been strictly evaluated and validated via the two-step procedure recommended in Anderson and Gerbing's (1988) seminal paper. In this way, the unidimensionality, reliability and validity of the measures used to test the hypothesised relationships are ensured. Also ensured in this way is the fulfilment of the ultimate goal; namely, to establish and test an important, robust, credible and extended structural equation model for online switching barriers that has explanatory power (McQuitty 2004), and that permits prediction and explanation of both consumer loyalty and habitual purchasing behaviour towards pure-play e-retailers.

The model has expanded the conceptualisation of loyalty development by incorporating the established and pertinent variables from

the social exchange model, particularly the investment model (i.e. switching costs, alternative attractiveness, satisfaction and loyalty), with the additional outcome variable of habitual purchasing behaviour. No empirical study to date has examined these constructs in a single model; hence, the complex inter-relationships among these constructs to date have not been fully understood and uncovered. To reiterate, past research on the role of switching costs in predicting loyalty has produced conflicting findings (Viard 2007; Yang and Peterson 2004). Furthermore, while the moderating role of switching costs on the satisfaction and loyalty linkage has been researched (e.g. Balabanis *et al.* 2006), its impacts on the satisfaction and habit relationship as well as on the alternative attractiveness and habit relationship have largely been ignored.

### **8.3 IDENTIFIED PERCEIVED ONLINE SWITCHING COST DIMENSIONS**

Online switching is operationalised and conceptualised as a higher-order construct composed of many dimensions. This approach not only accords with Burnham *et al.*'s (2003) and Jones *et al.*'s (2002) studies from the offline perspective, but also reinforces and extends their findings. As previously discussed, past empirical studies on the switching cost concept, in both online and offline contexts, have generally either:

- operationalised and measured switching costs as a unidimensional construct (e.g., Holloway 2003; Jones *et al.* 2000; Ping 1993; Ranaweera and Prabhu 2003; Tsai *et al.* 2006; Yang and Peterson 2004), in spite of claims that multidimensionality exists (e.g., Guiltinan 1989; Klemperer 1987);

or:

- have measured only one or a selection of switching cost dimensions (e.g., Bell *et al.* 2005; Chen and Hitt 2002; Gremler 1995; Kim *et al.* 2004; Lee *et al.* 2001; Weiss and Anderson 1992).

Investigating only a selection of dimensions of a multifaceted concept is likely to lead to inaccurate assessment of the construct (Yanamandram and White 2006b), while utilising a unidimensional measure inflates the measurement error. This is because such an approach requires respondents cognitively to combine multidimensional ratings when answering the questionnaire (Burnham *et al.* 2003). This may be one explanation for the conflicting findings in the extant literature (Torres and Martins 2009).

The results provide both theoretical and empirical support of higher-order online switching costs composed of five underlying dimensions – *learning costs, artificial costs, uncertainty costs, search and evaluation costs and brand relationship loss costs*. In accordance with expert opinion (e.g.

Bagozzi and Edwards 1998), the multidimensional model achieves discrimination with regards to each disaggregate dimension. This also accords with past research in the offline environment, where switching costs are conceptualised as higher-order constructs with distinct underlying facets (e.g. Burnham 1998).

Detailed descriptions and discussion of each underlying dimension have been provided in Chapter 3 (pp. 100 - 115).

#### **8.4 HYPOTHESES TEST RESULTS**

Table 8-1 summarises the research findings. Eight out of the 11 remaining hypothesised relationships are found to be significant. Comparison of path coefficients and t-value reveal that the most influential construct predicting loyalty is alternative attractiveness (with the path coefficient of -0.58), followed by perceived switching costs (with the path coefficient of 0.18) and customer satisfaction (with the path coefficient of 0.10). In contrast, the most influential construct influencing habit is found to be satisfaction (with the path coefficient of 0.42), followed by alternative attractiveness (but only at 10% confidence level with the path coefficient of -0.17).

Table 8-1: Summary of Research Results

Hypothesised Parameter		Results	
H <sub>1</sub>	Satisfaction will have a positive influence on Loyalty.	Supported (+)	**
H <sub>2</sub>	Satisfaction will have a positive influence on Habit.	Supported (+)	***
H <sub>3</sub>	Loyalty will have a positive influence on Habit.	Supported (+)	**
H <sub>4</sub>	Alternative Attractiveness will have a negative influence on Loyalty.	Supported (-)	***
H <sub>5</sub>	Alternative Attractiveness will have a negative influence on Habit.	Partially Supported (-)	*
H <sub>6</sub>	Perceived switching costs will have a positive influence on Loyalty.	Supported (+)	***
H <sub>7</sub>	Perceived switching costs will have a positive influence on Habit.	Refuted	
H <sub>8</sub>	Perceived Switching Costs will moderate the relationship between Satisfaction and Loyalty	Refuted	
H <sub>9</sub>	Perceived Switching Costs will moderate the relationship between Satisfaction and Habit.	Supported (+)	***
H <sub>10</sub>	Perceived Switching Costs will moderate the relationship between Alternative Attractiveness and Loyalty.	Refuted	
H <sub>11</sub>	Perceived Switching Costs will moderate the relationship between Alternative Attractiveness and Habit.	Supported (+)	**
<b>Other outcomes</b>			
Loyalty <i>substantially mediates</i> the Alternative Attractiveness and Habit link.			
Total effects of Alternative Attractiveness on Habit are <i>negative</i> (-) and significant.			**

\*\*\* = significant at the 1% level

\*\* = significant at the 5% level

\* = significant at the 10% level

#### 8.4.1 Satisfaction → Loyalty (H<sub>1</sub>)

The result supports H<sub>1</sub>, which posits that satisfaction has a direct and positive influence on loyalty. This is very much in line with past findings in the

literature, in that greater satisfaction will lead to higher commitment (Balabanis *et al.* 2006; Corstjens and Lal 2000) and loyalty (Evanschitzky and Wunderlich 2006; Methlie and Nysveen 1999) to the retailer. Satisfied customers are more likely to have stronger repurchase intention (Zeithaml, Berry and Parasuraman 1996) and tend to have a higher level of service usage compared with those who are less satisfied. This finding also reinforces the applicability of this relationship to internet e-commerce (Anderson and Srinivasan 2003; Balabanis *et al.* 2006; Gefen 2002; Harris and Goode 2004; Reichheld *et al.* 2000; Srinivasan *et al.* 2002; Yang and Peterson 2004).

However, it seems that the influence of satisfaction on loyalty is not very substantial, i.e. satisfaction explains only 10 per cent of the variance in loyalty. This raises the issue about how successful customer defection can be controlled simply by managing customer satisfaction. Past studies have also found that satisfaction explains very low variance in repurchasing behaviour, i.e. approximately 8 per cent (Balabanis *et al.* 2006; Bolton 1998; Mazursky, LaBarbera and Aiello 1987). According to Reichheld (1996), more than 50 per cent of customers generally defect, despite being happy, or even delighted, with a company. As such, although this research has found satisfaction to explain only 10 per cent of variance in loyalty, dissatisfaction does not necessarily result in defection. The researcher agrees with several past studies (e.g. Chebat, Davidow and Borges 2010; Reichheld *et al.* 2000; Torres



and Martins 2009) that managing satisfaction and/or service quality are not the only way to foster customer loyalty although most companies seem to be bound by this narrow and uncreative belief. Reichheld and Schefter (2000) refer to this as companies falling into the 'satisfaction trap'.

Another possible explanation that is consistent with previous arguments of many scholars is that the linkage between satisfaction and loyalty is non-linear. Only after satisfaction passes a certain critical threshold does loyalty increase (Chebat *et al.* 2010; Dick and Basu 1994; Mittal and Kamakura 2001; Torres and Martins 2009). Based on this argument, online customers must be extremely satisfied before their loyalty starts to develop. Again, retaining customers on the basis of satisfaction metrics alone may not be a very sensible strategy.

#### **8.4.2 Satisfaction → Habit (H<sub>2</sub>)**

The result also confirms the hypothesis that satisfaction is positively associated with habit. This concurs with the notion that the formation of habit is a function of a behaviour that has not only being repeated, but has always been satisfactorily performed over time (Gan *et al.* 2009; Limayem *et al.* 2003, 2007; Wood and Neal 2009). The influence of satisfaction on habit is found to be very substantial (standardised coefficient = 0.42,  $p < 0.001$ ) as compared to its influence on loyalty (see Section 8.4.1 above).

First, this is evidence that satisfaction generates habit on the basis of a customer's strong positive attitude towards the e-retailer (Oliver 1999). Therefore, this result contradicts the previous notion that habit is synonymous with spurious loyalty because such loyalty is based on the definition that high repeat purchasing occurs when there is *low relative attitude* (Dick and Basu 1994) towards the firm. Moreover, even though habit is considered as a 'mindless' mode of repurchasing (Breivik and Thorbjornsen 2008), this is the ultimate loyalty (Oliver 1999), where customers, to a certain extent, are insulated from competitors' overtures. It is very difficult to discard habits once they are formed, which is consistent with the findings of past research by many scholars, especially those from the social psychology (e.g. Aarts and Dijksterhuis 2000; Ajzen 2002; Verplanken 2006) and information systems arenas (e.g. Lankton *et al.* 2010; Limayem *et al.* 2007).

Second, relative to purchasing from an offline store, the co-production nature of internet self-service technology (SST) leads to greater participation on the part of customers in co-creating values for themselves. Auh *et al.* (2007) define co-production as "*constructive customer participation in the service creation and delivery process*" (p. 361). They add that co-production needs customers to contribute meaningfully and cooperatively to the service process. In addition, customer participation refers to "*the degree of consumer's effort and involvement (in) mental and physical [effort] necessary*

*to participate in the production and delivery of services*” (Silpakit and Fisk 1985, as cited in Any 2010). Referring back to habit formation, the participative nature of websites is a highly promising environment to create skill-based habit of use (Hoffman and Novak 2009; Murray and Häubl 2007). While the products often sought by respondents may not be high involvement in nature (i.e. books, CDs, etc.), the need to co-create values due to internet SST itself increases customer participation, which enhances involvement with the e-retailer. This participation in the internet SST, if performed repeatedly and satisfactorily (e.g. due to ease of use of the website) over time, cultivates ‘cognitive lock-in’ with respect to the website and boosts habit formation (Murray and Häubl 2007).

Customer satisfaction with service co-creation comes not only from successful product delivery, but also from the very experience of participating. Past researchers term this as ‘value-in-use’, which is consistent with the service-dominant logic perspective in marketing (Grönroos 2006, 2008; Vargo and Lusch 2004). It is important to highlight the positive link between customer participation in SST interface and customer satisfaction / enjoyment (Any 2010; Curran and Meuter 2007; Meuter, Ostrom, Bitner and Roundtree 2003; Meuter, Ostrom, Roundtree and Bitner 2000) with the service and loyalty towards the service (Auh *et al.* 2007).

Therefore, the result of this study, which shows satisfaction to explain substantial variance in habit [to a much greater degree than in loyalty (see Section 8.4.3 below)], is also consistent with this perspective. Customer satisfaction, derived partly from perceived value-in-use of website interface and features, leads to customer retention via skill-habit of use. In contrast, although not proven here, it is reasonable to expect that dissatisfaction (e.g. due to lack of value-in-use perception resulting from lack of perceived ease of use) may lead to the discarding of habit and online customer defection.

#### **8.4.3 Loyalty → Habit (H<sub>3</sub>)**

The result also supports the hypothesis positing the direct positive association between loyalty and habit (standardised coefficient = 0.21;  $p < 0.05$ ). In agreement with Oliver (1997, 1999) and Breivik and Thorbjørnsen (2008), this study conceptualises loyalty as the ‘mindful’ mode of commitment to repurchase, and habit automaticity as the ‘mindless’ mode of commitment to repurchase. A habitual activity *“although not reasoned action now... may nevertheless derive from an action that at one time was reasoned”* (Kahle and Beatty 1987, p. 229). Customers who demonstrate initial, mindful commitment (conative or intentional loyalty: Oliver 1999) can, over time, develop mindless commitment (action or inertial loyalty: Oliver 1999) with the e-retailer as they rely on the status quo of past choice.

Specifically, in the internet market, characterised by uncertainty and vulnerability, reliance on past satisfactory purchases from a few e-retailers is perceived to be rational and wise. As mentioned previously, the literature provides evidence of 'cognitive lock-in' due to skill-based habits of website usage as customers repeatedly patronise the same websites over time. This satisfying and repetitive use of service will lead to increased perceived ease of use and automaticity in usage / navigation of one e-retailer's website over those of alternative e-retailers (Murray and Häubl 2007; Murray and Häubl 2008; Woisetschläger, Lentz and Evanschitzky).

In addition, according to Oliver (1997, 1999), inertial loyalty or action loyalty is the highest form of loyalty, and refers to customers' blocking out of communication from alternative companies. Such behaviour makes customers much less likely to switch to competing companies.

#### **8.4.4 Alternative Attractiveness → Loyalty (H<sub>4</sub>)**

One component of switching barriers studied that is likely to influence loyalty and habitual purchasing is customer's positive perception or knowledge of alternatives available in the market. Previous literature on supplier relationships in the marketing channels have found that outcomes expected from alternative companies will strongly affect the willingness of the customer to remain in a current relationship (Anderson and Narus 1990).

The results show support for the hypothesis that alternative attractiveness have a negative influence on loyalty. Specifically in the online market, this construct is one of the key factors driving repurchase and switching behaviour. This is evidenced by the substantially negative influence (standardised coefficient = -0.58) of the attractive alternatives perception on customer loyalty.

The above result concurs with previous literature which showed that when customers sense the lack of viable alternatives, the probability of switching decreases and the likelihood of their remaining with the current retailer increases (Bansal *et al.* 2005; Bendapudi and Berry 1997; Capraro *et al.* 2003; Jones *et al.* 2000; Keaveney 1995; Li *et al.* 2007; Patterson and Smith 2003; Ping 1993; Rusbult *et al.* 1982).

#### **8.4.5 Alternative Attractiveness → Habit (H<sub>5</sub>)**

Hypothesis 5, which suggests that attractiveness of alternatives will have a direct and negative influence on habit, is only partially supported (-0.17 at 10 per cent confidence interval, one-tailed). This is rather interesting because on an intuitive level, it might be expected that perception of high alternative attractiveness would have a significantly negative influence on repeated use

of a website and, hence, on habit formation. This led the researcher to examine the *total effect*<sup>50</sup> of alternative attractiveness on habit.

#### 8.4.6 Alternative Attractiveness → Loyalty → Habit

The examination of all direct and indirect effects in the model reveals that the total effect of alternative attractiveness perception on habit is negative in terms of direction. The result of bootstrapping then reveals that this effect is significant. This evidently shows that overall, high perceived attractiveness of alternatives in the online market will prohibit the formation of habit in purchasing from the e-retailer.

Interestingly, the finding also indicates that the influence of alternative attractiveness on habit is *substantially mediated* by loyalty. In other words, *alternative attractiveness* has an indirect effect on *habit* through *loyalty*. As mentioned previously, loyalty in this research is regarded as a customer's 'mindful' mode of commitment, whereas habit reflects a customer's 'mindless' mode of commitment. When customers are at the loyalty stage in the model, they are still relatively 'mindful' of competitors. This is represented by the considerable variance of loyalty explained by the construct alternative attractiveness. Following this, as customers move to

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<sup>50</sup> "The sum of direct and indirect effects of an independent variable on a dependent variable refers to the total effect of the independent variable." (Hoyle 1995, p. 4)

being 'mindlessly' inert in their choice and purchase actions (habit), competitors' messages may not even be processed by the brain. In a mindless mode, customers are conserving mental resources by reducing the complexity of decision making so that choices as well as purchases can be made automatically, with high efficiency and minimal conscious control (Ajzen 2002; Khare and Inman 2005; Verplanken and Wood 2006). Indeed, it has been argued that customers in mindless mode are likely to have a consideration set of only one provider for certain services (Bourdeau 2005). This is evidenced by the weak direct influence between alternative attractiveness and habit, which is only, as previously mentioned, partially supported ( $-0.17$ ,  $p < 0.1$ , one-tailed).

This finding is congruent with, and offers further theoretical support to, Oliver's (1999) contention that action-inert loyal customers (as compared to customers in other stages of loyalty) are less vulnerable to competitors because they *"would be expected to 'tune out' competitive messages routinely,... and possibly shun the trial of competitive brands"* (p. 27). Moreover, according to economic theory, once habit is formed in consumption, the sensitivity towards price will decrease (Dyanan 2000; Yang 2008) possibly because customers are no longer paying attention to competitors' prices. On the other hand, those customers who are knowledgeable about alternatives and/or find them appealing are less likely



to develop habitual loyalty towards the e-retailer. These customers' commitment to repurchase may possibly remain at the 'mindful' level. However, through sufficient satisfactory repetition in service co-creation with the e-retailer's website, habitual loyalty can be formed. This discussion also supports Beatty and Kahle's (1988) theorisation in their effort to extend the TRA model to include the habit construct as the ultimate dependant variable.

Therefore, the mechanism of the alternative attractiveness and habit link is not really a direct one, being *largely mediated* by loyalty, which is customers' more mindful account of relationship stability.

This is the first study to demonstrate empirically the mediated influence of attractive alternatives perception on habit.

#### **8.4.7 Switching Costs → Loyalty (H<sub>6</sub>)**

The result supports the hypothesis that perceived switching costs has a direct and positive effect on loyalty. In line with the past literature, there is convincing evidence to conclude that satisfaction and switching costs have a positive, direct effect on loyalty (Balabanis *et al.* 2006; Burnham *et al.* 2003; Tsai and Huang 2007; Tsai *et al.* 2006). In the past, only two studies have failed to find a significant direct effect of switching costs on loyalty (i.e. Jones *et al.* 2000; Yang and Peterson 2004).

Interestingly, the result also reveals that switching costs explained loyalty more powerfully than satisfaction. This result is consistent with previous research that has found the influence of switching costs on customer intention to purchase to be stronger than satisfaction in the *offline* (Burnham *et al.* 2003) environments. This result also shows that, contrary to past assertions about (Bakos 1997) and evidence (Holloway 2003) for the negligibility of switching costs *online*, switching costs are, indeed, a very important retention strategy in the online environment.

#### **8.4.8 Switching Costs → Habit (H<sub>7</sub>)**

Interestingly, the hypothesis positing the direct positive influence of switching costs on habit is not supported by the result. On an intuitive level, it might be expected that since switching costs have a positive influence on loyalty, they should also have a positive influence on habit. However, this is not confirmed by the result.

Apart from equating habit or inertia to spurious loyalty (e.g., Dick and Basu 1994; Huang and Yu 1999), there are also many studies that equate the concept of habit or inertia to the concept of perceived switching costs, both descriptively (e.g. Fornell 1992) and empirically (e.g. Emanuelsson and Uhlén 2007; Gremler 1995). For example, Gremler (1995) theorised that habit was one sub-construct of switching costs although he failed to provide empirical

proof. In contrast to Gremler's theorising, in this research, no statistical significance has been found with respect to the relation between switching costs and habit. Indeed, as the direction, though extremely weak, is negative, the view that switching costs and habit are two distinct concepts is supported.

Nevertheless, the above finding does not reduce the theoretical importance of switching costs in this study as a predictor of habit because the moderating effects are significant (Baron and Kenny 1986), as discussed in the next section.

#### *Moderating role of switching costs (SC)*

To reiterate, the interaction effects of switching costs in the structural model are tested strictly via the orthogonalisation procedure proposed by Little *et al.* (2006). As described previously in the methodology chapter, this most recent method helps to eliminate the multicollinearity problem when testing interaction effects in a structural equation model. In addition, as implied in the methodology chapter, the process described is believed to be stronger than previous approaches to testing latent switching cost interactions in a structural equation model.

**8.4.9 SC\*Satisfaction → Habit (H<sub>9</sub>) and SC\*Attractive Alternative → Habit (H<sub>11</sub>)**

As described in Subsection 8.4.8 above, the direct link hypothesised for switching costs and habitual purchasing is found to be not significant (H<sub>7</sub>). To reiterate, this is extremely interesting but somewhat counter-intuitive, as it contradicts the argument that one of the key drivers of habitual behaviour is increased perception of switching costs (arising from obtaining skill-based use) (Murray and Häubl 2007). Furthermore, as mentioned in the previous section, many scholars have regarded habit or inertia as one of the components of switching costs, albeit only descriptively (e.g. Fornell 1992; Gremler 1995).

The mechanism here means that the relationship between perceived switching costs and habit is not direct and positive; rather, it is indirect, interacting firstly, with satisfaction and secondly, with alternative attractiveness.

The moderating role of online switching costs in the online satisfaction-habit relationship shows that switching costs act as an insurance or catalyst in strengthening the relationship between satisfaction and habit. It is also possible that the perception of high online switching costs could spark or even precipitate the influence of satisfaction on habit. This may

explain why Amazon continues to perform better than Bookdepository.co.uk even though the former charges almost consistently higher prices for books. Repeat purchases leading to habitual loyalty with switching costs acting as the catalyst may make Amazon the market leader in online bookselling.

Another interesting implication of this result is that in the case of low satisfaction experiences, switching costs may become more important in influencing habit. Therefore, perception of strong switching costs (as compared to weak switching costs) increases the strength of the link between customer satisfaction and habit. In other words, online shoppers' perception of high switching costs reduces the tendency for less satisfied customers to discard the habit of purchasing from particular e-retailers' websites. However, when switching costs are perceived to be low, customers may experiment with alternative websites even when they are satisfied because they may be relatively free to do so (due to low switching costs). This is perhaps more likely in the online environment because browsing alternative retailers online is not particularly difficult and takes much less time and effort than it would in a physical offline environment.

Similarly, perceived switching costs are also found to moderate the link between alternative attractiveness and habit. Again, this validates the importance of perceived switching costs as a moderator; however, in this

instance, it acts as a neutraliser of the negative effect of other competing alternatives on habit.

#### **8.4.10 SC\*Satisfaction → Loyalty (H<sub>8</sub>) and SC\*Attractive Alternative →**

##### **Loyalty (H<sub>10</sub>)**

While the moderating roles of perceived switching costs in the association between satisfaction and habit, and between alternative attractiveness and habit are found to be significant, the hypothesised moderating effects in the satisfaction-loyalty and attractiveness-loyalty relationships are not significant. Thus, the results suggest that switching costs have only a direct positive effect on loyalty, and not a moderating effect. This finding both concurs and contradicts previous studies, as discussed in the subsequent paragraphs.

The above finding concurs with several *online* consumer studies which found switching costs not to function as a moderator in the satisfaction-loyalty link or satisfaction-behavioural intention link (e.g. Holloway 2003). According to Chebat *et al.* (2010), the non-moderating role of switching costs in this respect seems to be the most common finding in the *offline* B2C context (e.g. Bell *et al.* 2005; Burnham *et al.* 2003; Patterson and Smith 2003).

At the same time, this result contradicts those of other studies. For example, Jones *et al.* (2000), Ranaweera and Prabhu (2003) and Aydin *et al.*

(2005) found negative moderating effects of switching costs on service satisfaction and repurchase intention or loyalty. One study also found positive moderating effects of switching costs on satisfaction and loyalty (Lee *et al.* 2001). One possible explanation for such findings is that all of these studies were conducted either in 'high-touch' offline services (i.e. hair salon: Jones *et al.* 2000) or contractual services contexts (i.e. financial service: Jones *et al.* 2000; telecommunications service: Aydin *et al.* 2005, Ranaweera and Prabhu, 2003 and Lee *et al.* 2001).

#### **8.4.11 Overall Result**

The findings reveal that between the two components of switching barriers conceptualised in the model, alternative attractiveness plays a greater role as a driver of customer loyalty. In other words, the lower the perception of good alternatives available in the market, the more 'mindfully' loyal customers will be. It would appear that an e-retailer is not as well protected by new entrants in the online environment as their offline counterparts, as this result contradicts studies in the offline environment. In the offline environment, switching costs play a greater role in determining loyalty as compared to alternative attractiveness, where competitive insulation appears to be more substantial. This has been found especially among studies on continuous

and/or contractual service (e.g., financial, credit card and phone services, etc.).

With respect to 'mindless' habit, customer satisfaction is the greatest driver, followed by loyalty and alternative attractiveness. This shows that one of the most important prerequisites of habit formation is experiences of satisfaction with the e-retailer, a finding that concurs with previous theories of habit in the social psychology literature. In addition, to a certain extent, habitual rather than loyal customers are insulated from competitive pressures. Habitual customers are thus the most preferable for any firm.

## **8.5 SUMMARY**

This chapter has explained and discussed the empirical findings demonstrated in Chapter 6 and 7. Research hypotheses relating to the direct influence of satisfaction, alternative attractiveness and perceived switching costs on loyalty are all accepted. The research findings have found that satisfaction has the least direct impact on customer loyalty as compared to perceived attractiveness of alternatives and switching costs.

On the other hand, in driving habitual behaviour of repurchase, customer satisfaction and loyalty play important and direct influential roles as compared to perceived alternative attractiveness (only partially supported)



and switching costs (not significant). However, while the direct effect has been found to be only partially supported, the total effect (combination of direct and indirect effects) of perceived alternative attractiveness on habit has been found to be negative and significant. It has also been found that customer loyalty acts as a mediator in the perceived alternative attractiveness and habit relationship.

With respect to the moderating role of perceived online switching costs, the results suggest that overall perceived switching costs have a direct, positive effect on loyalty, but not a moderating effect. In contrast, overall perceived switching costs do not have a direct influence on habit, but have a moderating effect on customer satisfaction and habit (sat -> habit) as well as on perceived alternative attractiveness and habit (ATA -> habit).

The next chapter concludes this dissertation by highlighting the contribution of the research to theory and practise, discussing its limitations and also suggesting possible future research avenues.

## **Chapter 9**

### **CONCLUSIONS**

#### **9.1 INTRODUCTION**

The final chapter presents the summary and conclusions of this research. It also highlights the contribution of the study, its limitations and suggestions for future research.

Investigating the role of the two components of switching barriers in the online environment, this thesis has developed a model of online customer retention for B2C relationships in the pure online retailing context, based on the theory of social exchange. To this end, the research has mainly utilised quantitative approaches to explore the nature of online switching barriers and their dimensions.

This chapter starts by providing the theoretical and managerial contributions of the research. Next, the chapter presents the limitations of the study and suggestions for future research.

#### **9.2 THEORETICAL CONTRIBUTIONS**

This dissertation highlights a number of limitations of previous studies. First, there is limited knowledge about the nature and consequences of the

influence of online switching costs on customer retention for pure online retailers, particularly in the UK. In this respect, the study adds to the growing empirical research on consumer switching barriers toward online retailers.

Second, previous research has been found frequently to deliver inconsistent and contradictory results with regards to the influence of switching costs on loyalty, both in online and offline customer studies. Several researchers have highlighted that these issues may stem from the various criteria and limitations associated with measuring switching costs as well as from the various contexts in which those studies were conducted (e.g. online vs. offline environment, transaction vs. contractual-based relationships, nature of products, etc.). This thesis contributes to the literature by conceptualising and operationalising customers' multi-faceted customer-perceived online switching costs. The measurements have been rigorously tested for validity and reliability via confirmatory factor analysis and multi-sample confirmatory factor analysis, where five important and statistically distinctive dimensions have been found. These dimensions of online perceived switching costs are learning costs, artificial costs, uncertainty costs, search and evaluation costs and psychological costs in terms of brand relationship loss. They represent different facets of switching costs arising from time, effort, monetary or relational perspectives. Therefore, this

research has undertaken a more comprehensive investigation of switching costs compared to past research on online consumer behaviour.

Third, this research makes a significant contribution in terms of the conceptualisation of habitual behaviour in repurchasing from an e-retailer. Past studies, especially those in the consumer behaviour area, have generally assumed that habit or inertia and spurious loyalty are analogous (Dick and Basu 1994) because both types of behaviour occur, by and large, without a clear motive or intention (Ji and Wood 2007; Wood and Neal 2009). In other words, they have been considered to be the 'mindless' action of repeat purchases (Breivik and Thorbjornsen 2008). In contrast, this study has conceptualised and tested habit persistence in online purchase as 'mindless' action evolving from multiple 'reasoned' or 'mindful' actions in the past. This is in line with the theorisation of Oliver (1997, 1999), namely, that inert customers are 'action loyal' customers, characterised as having routine response behaviour, being highly resistant to change and almost insulated from competitive persuasion (Dyanan 2000; Oliver 1999).

In addition, the high variance of habit explained by customer satisfaction provides validation of the critical role of satisfaction as a driver of habit formation as suggested in many studies, especially those in the social psychology and information systems disciplines. As the role of habit has rarely

been tested empirically in consumer behaviour literature (although see Beatty and Kahle 1988), this research may be regarded as contributing to the literature in this respect. Furthermore, on the basis of the literature review undertaken in this study, it would appear that in the context of consumer research, no research to date has extended the social exchange theory to include habit as a construct in a single researchable model. This is perhaps surprising given the clear importance of the element of habit in attitude-behaviour consumer relationships.

Next, this study has brought to light a number of significant relationships between switching barriers and customer retention, which were not confirmed empirically in the extant literature. Specifically, these are as follows:

- the catalytic effect of online perceived switching costs in strengthening the influence of satisfaction on habitual repurchase;
- the role of perceived switching costs in neutralising the negative effect of competing alternatives on habitual repurchase; and
- the mediating role of 'mindful' customer loyalty in the relationship between perceived alternative attractiveness and 'mindless' habitual repurchase.

The discussion has highlighted the theoretical contribution of this thesis. The next section presents several practical contributions of the study.

### **9.3 MANAGERIAL CONTRIBUTIONS**

The results of this study also provide a number of managerial implications for online retailers. In accordance with past research on online switching behaviour, the results serve to further emphasise the importance of perceived switching barriers and habitual purchasing in maintaining a loyal customer base in the online marketplace.

#### **9.3.1 Perceived Alternative Attractiveness**

The study's findings suggest that e-retailers should strategically cultivate the perceptions of barriers to switching. In particular, the lack of perception of good alternatives forms a formidable barrier to exit and hence, is a vital factor in customer retention. As previously discussed, the concept of alternative attractiveness is closely related to the perception of firm heterogeneity or differentiation in strategy research. An e-retailer is differentiated when it provides something of value that is not offered by the competitors. Customers will perceive few attractive alternatives in the marketplace when the retailer secures enough differential advantage, thereby increasing the possibility of loyalty. Given the highly competitive internet retailing

environment, and since e-retailers have little control over the behaviour of competitors, e-retailers interested in improving customer retention should make every effort to reduce the perception that alternatives are appealing. This can be achieved through service differentiation, for example, by offering one-stop shopping; encouraging a wider usage of the service through product reviews, creation of wish lists, etc.; and by offering bundled services and features such as suggesting other related items whenever a customer buys a product and offering cheaper postage for multiple purchases. Amazon Kindle is a good example of a product which encourages wider service and product usage and consequent repeat purchase.

### **9.3.2 Perceived Online Switching Costs and 'Mindless' Repurchase**

Similarly, results also demonstrate perceived online switching costs to be an important factor in e-retailer customer retention, particularly in ensuring that customers will continue their habitual repurchase with the same e-retailer. It is interesting to note that switching costs do not have a significant direct influence on habitual repurchase (although there is an influence on customer loyalty). Instead, perceived switching costs indirectly influence habitual repurchase through their positive interaction with satisfaction. This finding offers two important managerial implications. Firstly, as discussed previously, switching costs can act as a catalyst to precipitate and/or reinforce the

influence of satisfaction on habitual purchase. Secondly, perception of switching costs also ensures that the customer will still stay despite occasional unsatisfactory service encounters. In practical terms, when customers are happy or satisfied with the e-retailer and switching is difficult (due to high switching costs), they remain with the e-retailer out of habit. Here, perceived switching costs and satisfaction simultaneously accelerate the formation of habitual repurchase. In contrast, although dissatisfaction may lead to the discarding of habit, perceived switching costs can act as insurance when dissatisfaction arises.

Perceived switching costs have also been found to moderate the link between alternative attractiveness and habit. In a highly dynamic and competitive e-retailing market, insulation offered by inert behaviour may not necessarily be sufficient to prevent switching if there are too many good alternatives available. In this context, perceived switching costs act as neutralisers of the negative effect of good alternatives on habit. In other words, in the case of high perceived alternative attractiveness, an e-retailer can be assured of retention in terms of habitual purchase if the customer's pre-existing perception of switching costs is sufficiently high.

Therefore, from a managerial perspective, it is a much superior strategy to build customer satisfaction, switching costs and differentiation



together, rather than focusing on satisfaction alone in order to enhance customer retention.

### 9.3.3 Formation of Inert Customers

In addition, the findings indicate that to maintain their loyal customer base, online retailers must focus on the formation of habitual or inert customers. This strategy, as discussed previously, means building a customer base consisting of not only higher repeat purchasers, but also customers who are resistant to counter persuasion and to conflicting expert opinion. In addition, the customers should be willing to pay higher prices as inert customers are less likely to process information on alternatives (Oliver, 1999).

The results also indicate that the action-inert behaviour of inert customers, while not a reasoned action and lacking in intention, is driven from actions that once were actively deliberated upon. Customers who remain in the loyalty stage in the model continue *not* to be resistant or resilient to good alternatives. In the online environment, good alternatives are very easy to find. This explains the high variance in the attractive alternatives construct with respect to customer loyalty. However, as customers move to the habitual repurchase stage, alternatives are no longer such an important switching influence. This is evidenced in the almost non-significant attractiveness alternatives and habit relationship in the model.

Coupled with strategic focus on developing perception of switching costs, customers are 'locked in' with the e-retailer. Of course, this is subject to the continued satisfactory performance of the e-retailer. Deterioration of performance will lead to customers discarding the habit.

#### **9.3.4 E-retailer Value-in-Use and 'Mindless' Repurchase**

Websites that are user-friendly, intuitive, reliable and interesting are a highly conducive environment for customer skill-based habit formation. In addition, while it is true that most products purchased online are low involvement in nature (e.g. Books, CDs, etc.), a great website that induces satisfying participation to co-create value can be very engaging for customers. Over time, repeated participation in value co-creation will lead to goal-activated automaticity in buying behaviour and will ultimately drive the formation of action-inert customers.

#### **9.4 LIMITATION AND SUGGESTIONS FOR FUTURE RESEARCH**

First, while this study has investigated the customer perceptions of five unique switching cost dimensions of pure-play e-retailers, it has not focused on examining the importance placed on each by customers. For example, the role of each dimension on habit remains to be tested. There are strong

reasons to expect that learning cost influences on habit will differ from the influences of artificial costs. Future research might focus on this issue.

Second, this research has found no moderating effects of perceived switching costs on the satisfaction and loyalty relationship. As previously mentioned, past studies found that when their samples were subdivided into different levels of satisfaction, perceived switching costs moderated satisfaction and loyalty when satisfaction was above level (Yang and Peterson 2004) and below level (Balabanis *et al.* 2006). However, this study has not addressed: 1) the moderating effects of switching costs or their dimensions at different levels of satisfaction; 2) the interplay between switching costs and other constructs in the model when satisfaction is at various levels. The conflicting results among past studies are worthy of further investigation. Therefore, future research should extend this study (i.e. by using multidimensional measurements of switching costs) to investigate switching costs at different levels of satisfaction.

The third limitation of the study is that whilst the construct habit has been measured via prior measures that have been validated (Limayem, 2007, 2003), and the items have covered automaticity of behaviour, the process of measurement purifications in this research has resulted in two item scales for

the measure. Therefore, future research should further assess the measurement scale of habit to verify the results.

Next, the scope of this study is confined to pure-play online retailers. Most e-retailers have offline presence as well; for example, Argos is a bricks-and-click retailer that also utilises catalogues. Based on a study by Shankar *et al.* (2003), online loyalty does 'transfer' from the loyalty of traditional (offline) settings. Therefore, future research comparing pure-players and bricks-and-click companies might shed some light on the role of perceived switching barriers as a retention tool. By considering the different retail formats, comparative studies will help e-retailers to make strategic decisions about how to retain customers.

A further area of focus for future research relates to the role of habit in the online retailing context. Habit plays a crucial role in influencing not only individuals' website usage (Liao *et al.* 2006), but also, as demonstrated by this study, their repeat purchases from the website. In view of this, it is imperative for researchers to further examine the role of habit in the context of online retailing, where much doubt is still in existence.

In addition, while the association between habitual repurchase and perceived switching costs, attractiveness of alternatives, satisfaction and loyalty have been established in this study, further research in different

contexts is necessary to increase the generalisability of the findings. Moreover, given the importance of customer self-participation for the creating of value on the internet (Any 2010), future studies should examine the associations between customers' perceived value-in-use and their habitual repurchase as well as their perceived switching costs. For instance, recent research has shown that value-in-use of internet self-service technology is multidimensional in nature, sometimes being composed of hedonic, social and perceived control values-in-use (e.g. Any 2010). Extending the model to include the value-in-use concept could provide another interesting avenue for future research.

Finally, the associations between 'mindful' loyalty and 'mindless' habitual repurchase as well as between satisfaction and habitual repurchase are suitable for longitudinal studies. Such studies will further the appreciation and understanding of the sequential nature of these linkages.

## REFERENCE

- Aaker, David A. (2009). *Strategic Market Management*: Wiley-India.
- Aarts, Henk and Dijksterhuis, Ap. (2000). Habits as Knowledge Structures: Automaticity in Goal-Directed Behavior. *Journal of Personality and Social Psychology*, 78(1), 53-63.
- Aarts, Henk, Verplanken, Bas and van Knippenberg, Ad. (1998). Predicting Behavior from Actions in the Past: Repeated Decision Making or a Matter of Habit? *Journal of Applied Social Psychology*, 28(15), 1355-1374.
- Adamic, Lada A. and Huberman, Bernado A. (2001). The Web's Hidden Order. *Communications of the ACM*, 44(9), 55-60.
- Aguinis, Herman, Boik, Robert J. and Pierce, Charles A. (2001). A Generalized Solution for Approximating the Power to Detect Effects of Categorical Moderator Variables Using Multiple Regression. *Organizational Research Methods*, 4(4), 291-323.
- Ailawadi, Kusum L., Neslin, Scott A. and Gedenk, Karen. (2001). Pursuing the Value-Conscious Consumer: Store Brands Versus National Brand Promotions. *Journal of Marketing*, 65(1), 71-89.
- Ajzen, Icek. (1991). The Theory of Planned Behavior. *Organizational behavior and human decision processes*, 50(2), 179-211.
- Ajzen, Icek. (2001). Nature and Operation of Attitudes. *Annual review of Psychology*, 52(1), 27-58.
- Ajzen, Icek. (2002). Residual Effects of Past on Later Behavior: Habituation and Reasoned Action Perspectives. *Personality and Social Psychology Review*, 6(2), 107-122.

## References

- Ajzen, Icek and Fishbein, Martin. (1975). *Belief, Attitude, Intention, and Behavior: An Introduction to Theory and Research*. Reading, MA: Addison-Wesley.
- Ajzen, Icek and Fishbein, Martin. (1977). Attitude-Behavior Relations: A Theoretical Analysis and Review of Empirical Research. *Psychological Bulletin*, 84, 888-918.
- Amit, Raphael and Zott, Christoph. (2001). Value Creation in E-Business. *Strategic Management Journal*, 22(6-7), 493-520.
- Anderson, Eugene, Fornell, Claes and Lehmann, Donald R. (1994). Customer Satisfaction, Market Share, and Profitability: Findings from Sweden. *Journal of Marketing*, 58(3), 53-67.
- Anderson, Eugene W. and Sullivan, Mary W. (1993). The Antecedents and Consequences of Customer Satisfaction for Firms. *Marketing Science*, 12(2), 125-143.
- Anderson, James C. and Gerbing, David W. (1982). Some Methods for Respecifying Measurement Models to Obtain Unidimensional Construct Measurement. *Journal of Marketing Research*, 19(4), 453-460.
- Anderson, James C. and Gerbing, David W. (1988). Structural Equation Modeling in Practice: A Review and Recommended Two-Step Approach. *Psychological Bulletin*, 103, 411-423.
- Anderson, James C., Gerbing, David W. and Hunter, John E. (1987). On the Assessment of Unidimensional Measurement: Internal and External Consistency, and Overall Consistency Criteria. *Journal of Marketing Research*, 24(4), 432-437.
- Anderson, James C. and Narus, James A. (1990). A Model of Distributor Firm and Manufacturer Firm Working Partnerships. *Journal of Marketing*, 54(1), 42-58.

## References

- Anderson, Rolph E. and Srinivasan, Srini S. (2003). E-Satisfaction and E-Loyalty: A Contingency Framework. *Psychology and Marketing*, 20(2), 123-138.
- Antón, Carmen, Camarero, Carmen and Carrero, Mirtha. (2007). Analysing Firms' Failures as Determinants of Consumer Switching Intentions - the Effect of Moderating Factors. *European Journal of Marketing*, 41(1-2), 135-158.
- Any, Amrul Asraf Mohd. (2010). *Customer Participation in Value Creation in Internet-Based Self-Service Technology (ISST) Environment*. Doctor of Philosophy, University of Nottingham, Nottingham, UK.
- Arbuckle, James L. (2006). *Amos (Version 18) [Computer Program]*. Chicago: SPSS.
- Armstrong, Gary and Kotler, Philip. (2000). *Principle of Marketing*: McGraw Hill.
- Armstrong, J. Scott and Overton, Terry S. (1977). Estimating Nonresponse Bias in Mail Surveys. *Journal of Marketing Research*, 14(3), 396-402.
- Auh, Seigyoung, Bell, Simon J., McLeod, Colin S. and Shih, Eric. (2007). Co-Production and Customer Loyalty in Financial Services. *Journal of Retailing*, 83(3), 359-370.
- Aydin, Serkan, Özer, Gökhan and Arasil, Ömer. (2005). Customer Loyalty and the Effect of Switching Costs as a Moderator Variable. A Case in the Turkish Mobile Phone Market. *Marketing Intelligence and Planning*, 23(1), 89-103.
- Bagozzi, Richard P. (1995). Reflections on Relationship Marketing in Consumer Markets. *Journal of the Academy of Marketing Science*, 23(4), 272-277.



## References

- Bagozzi, Richard P. and Edwards, Jeffrey R. (1998). A General Approach for Representing Constructs in Organizational Research. *Organizational Research Methods*, 1(1), 45-87.
- Bagozzi, Richard, P. and Fornell, Claes. (1982). Theoretical Concepts, Measurements, and Meaning. In C. Fornell (Ed.), *A Second Generation of Multivariate Analysis* (Vol. 2). New York: Praeger.
- Bagozzi, Richard P. and Yi, Youjae. (1988). On the Evaluation of Structural Equation Models. *Journal of the Academy of Marketing Science*, 16(1), 74-94.
- Bagozzi, Richard P., Youjae, Yi and Phillips, Lynn W. (1991). Assessing Construct Validity in Organizational Research. *Administrative Science Quarterly*, 36(3), 421-458.
- Bakos, J. Yannis. (1997). Reducing Buyer Search Costs: Implications for Electronic Marketplaces. *Management Science*, 43(12), 1676-1692.
- Balabanis, George, Reynolds, Nina and Simintiras, Antonis. (2006). Bases of E-Store Loyalty: Perceived Switching Barriers and Satisfaction. *Journal of Business Research*, 59(2), 214-224.
- Baloglu, Seyhmus. (2002). Dimensions of Customer Loyalty: Separating Friends from Well Wishers. *Cornell Hotel and Restaurant Administration Quarterly*, 63(1), 47-54.
- Bansal, Harvir S, McDougall, Gordon H G, Dikolli, Shane S and Sedatole, Karen L. (2004). Relating E-Satisfaction to Behavioral Outcomes: An Empirical Study. *Journal of Services Marketing*, 18(4), 290 - 302.
- Bansal, Harvir S. and Taylor, Shirley F. (1999). The Service Provider Switching Model (Spsm): A Model of Consumer Switching Behavior in the Services Industry. *Journal of Service Research*, 2(2), 200-218.

## References

- Bansal, Harvir S. and Taylor, Shirley F. (2002). Investigating Interactive Effects in the Theory of Planned Behavior in a Service-Provider Switching Context. *Psychology and Marketing*, 19(5), 407.
- Bansal, Harvir S., Taylor, Shirley F. and St. James, Yannik. (2005). "Migrating" to New Service Providers: Toward a Unifying Framework of Consumers' Switching Behaviors. *Journal of the Academy of Marketing Science*, 33(1), 96-115.
- Barnes, James, Cudeck, Robert, Cote, Joseph and Malthouse, Edward. (2001). Factor Analysis: Checking Assumptions of Normality before Conducting Factor Analyses. *Journal of Consumer Psychology*, 10(1/2), 75-82.
- Baron, Reuben M. and Kenny, David A. (1986). The Moderator-Mediator Variable Distinction in Social Psychological Research: Conceptual, Strategic, and Statistical Considerations. *Journal of Personality and Social Psychology*, 51(6), 1173-1182.
- Bart, Yakov, Shankar, Venkatesh, Sultan, Fareena and Urban, Glen L. (2005). Are the Drivers and Role of Online Trust the Same for All Web Sites and Consumers? A Large-Scale Exploratory Empirical Study. *Journal of Marketing*, 69(4), 133-152.
- Bauer, Hans H., Grether, Mark and Leach, Mark. (2002). Building Customer Relations over the Internet. *Industrial Marketing Management*, 31(2), 155-163.
- Bauer, Raymond. (1967). Consumer Behavior as Risk Taking. In D. Cox (Ed.), *Risk Taking and Information Handling in Consumer Behavior*. Cambridge, MA.: Harvard University Press.
- Baumeister, Roy F. and Vohs, Kathleen D. (2003). Willpower, Choice and Self-Control. In G. Loewenstein, D. Read and R. Baumeister (Eds.), *Time and Decision*. New York: Russell Sage Foundation.

## References

- Baumgartner, Hans and Homburg, Christian. (1996). Applications of Structural Equation Modeling in Marketing and Consumer Research: A Review. *International Journal of Research in Marketing*, 13(2), 139-161.
- Baumgartner, Hans and Steenkamp, Jan-Benedict E.M. (2001). Response Style in Marketing Research: A Cross National Investigation. *Journal of Marketing Research*, 38(May), 143-156.
- Bearden, William O., Netemeyer, Richard G. and Mobley, Mary F. (1993). *Handbook of Marketing Scales: Multi-Item Measures for Marketing and Consumer Behavior Research*. Newbury Park: CA: Sage Publications.
- Beatty, Sharon E. and Kahle, Lynn R. (1988). Alternative Hierarchies of the Attitude-Behavior Relationship: The Impact of Brand Commitment and Habit. *Journal of the Academy of Marketing Science*, 16(2), 1-10.
- Beatty, Sharon E. and Smith, Scott M. (1987). External Search Effort: An Investigation across Several Product Categories. *Journal of Consumer Research*, 14(1), 83-95.
- Becker, Gary S., Grossman, Michael and Murphy, Kevin M. (1994). An Empirical Analysis of Cigarette Addiction. *The American Economic Review*, 84(3), 396-418.
- Becker, Gary S. and Murphy, Kevin M. (1988). A Theory of Rational Addiction. *The Journal of Political Economy*, 96(4), 675-700.
- Beggs, Alan and Klemperer, Paul. (1992). Multi-Period Competition with Switching Costs. *Econometrica: Journal of the Econometric Society*, 60(3), 651-666.
- Bell, Simon J., Auh, Seigyoung and Smalley, Karen. (2005). Customer Relationship Dynamics: Service Quality and Customer Loyalty in the Context of Varying Levels of Customer Expertise and Switching Costs. *Journal of the Academy of Marketing Science*, 33(2), 169-183.

## References

- Bendapudi, Neeli and Berry, Leonard L. (1997). Customers' Motivations for Maintaining Relationships with Service Providers. *Journal of Retailing*, 73(1), 15-37.
- Benson, Jeri and Bandalos, Deborah L. (1992). Second-Order Confirmatory Factor Analysis of the Reactions to Tests Scale with Cross-Validation. *Multivariate Behavioral Research*, 27(3), 459-487.
- Bentler, P. M. and Chou, Chih-Ping. (1987). Practical Issues in Structural Modeling. *Sociological Methods and Research*, 16(1), 78-117.
- Bhatnagar, Amit, Misra, Sanjog and Rao, H. Raghav (2000). On Risk, Convenience, and Internet Shopping Behavior. *Communucation of the ACM*, 43(11), 98-105.
- Bhattacharya, C. B., Rao, Hayagreeva and Glynn, Mary Ann. (1995). Understanding the Bond of Identification: An Investigation of Its Correlates among Art Museum Members. *Journal of Marketing*, 59(4), 46-57.
- Bitner, Mary Jo. (1990). Evaluating Service Encounters: The Effects of Physical Surroundings and Employee Responses. *Journal of Marketing*, 54(2), 69-82.
- Bitner, Mary Jo and Hubbert, Amy R. (1994). Encounter Satisfaction Versus Overall Satisfaction Versus Quality. In R. T. Rust and R. L. Oliver (Eds.), *Service Quality: New Directions in Theory and Practice* (pp. 72-94). Thousand Oaks, CA: Sage Publications, Inc.
- Blau, Peter M. (1964). *Exchange and Power in Social Life*. New York: Wiley.
- Blau, Peter M. (1986). *Exchange and Power in Social Life (2nd Printing)*. New Brunswick, NJ: Transaction Books.

## References

- Bloemer, José M. M. and Kasper, Hans D. P. (1995). The Complex Relationship between Consumer Satisfaction and Brand Loyalty. *Journal of Economic Psychology*, 16(2), 311-329.
- Blunch, Niels J. (2008). *Introduction to Structural Equation Modelling: Using SPSS and AMOS*. London: Sage Publications Ltd.
- Blut, Markus, Evanschitzky, Heiner, Vogel, Verena and Ahlert, Dieter. (2007). Switching Barriers in the Four-Stage Loyalty Model. *Advances in Consumer Research - North American Conference Proceedings*, 34, 726-734.
- Bollen, Kenneth A. (1989). *Structural Equations with Latent Variables*. New York ; Chichester: Wiley.
- Bolton, Ruth N. (1998). A Dynamic Model of the Duration of the Customer's Relationship with a Continuous Service Provider: The Role of Satisfaction. *Marketing Science (1986-1998)*, 17(1), 45.
- Bolton, Ruth N. and Drew, James H. (1991). A Multistage Model of Customers' Assessments of Service Quality and Value. *Journal of Consumer Research*, 17(4), 375-384.
- Bolton, Ruth N., Lemon, Katherine N. and Verhoef, Peter C. (2004). The Theoretical Underpinnings of Customer Asset Management: A Framework and Propositions for Future Research. *Journal of the Academy of Marketing Science*, 32(3), 271.
- Borland, Jim. (1998, April 13). Move over Megamalls, Cyberspace Is the Great Retailing Equalizer, *Knight Ridder/Tribune Business News*.
- Bourdeau, Brian L. (2005). *A New Examination of Service Loyalty: Identification of the Antecedents and Outcomes of an Attitudinal Loyalty Framework*. Phd, Florida State University. Retrieved from <http://etd.lib.fsu.edu/theses/available/etd-07072005-181656/>

## References

- Bowker, Dennis and Dillman, Don A. (2000). An Experimental Evaluation of Left and Right Oriented Screens for Web Questionnaires. Retrieved from <http://survey.sesrc.wsu.edu/dillman/papers/AAPORpaper00.pdf>
- BPS. (2010). The British Population Survey: Ethnic Origin by Purchases - Not Groceries. Retrieved 15 March, 2010, from <http://www.thebps.co.uk/>
- Breivik, Einar and Thorbjornsen, Helge. (2008). Consumer Brand Relationships: An Investigation of Two Alternative Models. *Journal of the Academy of Marketing Science*, 36(4), 443-472.
- Browne, Michael W. and Cudeck, Robert. (1992). Alternative Ways of Assessing Model Fit. *Sociological Methods and Research*, 21(2), 230-258.
- Browne, Michael W. and Cudeck, Robert. (1993). Alternative Ways of Assessing Model Fit. In K. Bollen and J. Long (Eds.), *Testing Structural Equation Models* (pp. 136-162). Newbury Park, CA: Sage.
- Brucks, Merrie. (1985). The Effects of Product Class Knowledge on Information Search Behavior. *Journal of Consumer Research*, 12(1), 1-16.
- Brynjolfsson, Erik and Smith, Michael D. (2000). Frictionless Commerce? A Comparison of Internet and Conventional Retailers. *Management Science*, 46(4), 563.
- Burnham, Thomas A. (1998). *Measuring and Managing Consumer Switching Costs to Improve Customer Retention in Continuous Services*. Ph.D., The University of Texas at Austin, Texas.
- Burnham, Thomas A., Frels, Judy K. and Mahajan, Vijay. (2003). Consumer Switching Costs: A Typology, Antecedents, and Consequences. *Journal of Academy of Marketing Science*, 31(2), 109-126.

## References

- Bussemeyer, Jerome R. and Jones, Lawrence E. (1983). Analysis of Multiplicative Combination Rules When the Causal Variables Are Measured with Error. *Psychological Bulletin*, 93(3), 549-562.
- Byrne, Barbara, M. (2010). *Structural Equation Modeling with AMOS: Basic Concept, Applications and Programming* (2nd ed.). New York: Routledge.
- Capraro, Anthony J., Broniarczyk, Susan and Srivastava, Rajendra K. (2003). Factors Influencing the Likelihood of Customer Defection: The Role of Consumer Knowledge. *Journal of the Academy of Marketing Science*, 31(2), 164-175.
- Carmon, Ziv, Wertenbroch, Klaus and Zeelenberg, Marcel. (2003). Option Attachment: When Deliberating Makes Choosing Feel Like Losing. *Journal of Consumer Research*, 30(1), 15-29.
- Carson, David, Gilmore, Audrey, Perry, Chad and Gronhaug, Kjell. (2001). *Qualitative Marketing Research*. London: Sage Publications.
- Caruana, Albert. (2004). The Impact of Switching Costs on Customer Loyalty: A Study among Corporate Customers of Mobile Telephony. *Journal of Targeting, Measurement and Analysis for Marketing*, 12(3), 256-268.
- Chaffey, Dave, Mayer, Richard, Johnston, Kevin and Ellis-Chadwick, Fiona. (2003). *Internet Marketing: Strategy, Implementation and Practice*. Harrow: Prentice Hall.
- Chang, Hsin Hsin and Chen, Su Wen. (2009). Consumer Perception of Interface Quality, Security, and Loyalty in Electronic Commerce. *Information and Management*, 46(7), 411-417.
- Chang, Kuo-chung, Jackson, Joyce and Grover, Varun. (2003). E-Commerce and Corporate Strategy: An Executive Perspective. *Information and Management*, 40(7), 663-675.

## References

- Chang, Sea-Jin, Witteloostuijn, Arjen van and Eden, Lorraine. (2010). From the Editors: Common Method Variance in International Business Research. *Journal of International Business Studies*, 41(2), 178-184.
- Chatfield, C. (1985). The Initial Examination of Data. *Journal of the Royal Statistical Society*, 148(3), 214-253.
- Chaudhuri, Arjun and Holbrook, Morris B. (2001). The Chain of Effects from Brand Trust and Brand Affect to Brand Performance: The Role of Brand Loyalty. *The journal of marketing*, 65(2), 81-93.
- Chebat, Jean-Charles, Davidow, Moshe and Borges, Adilson. (2010). More on the Role of Switching Costs in Service Markets: A Research Note. *Journal of Business Research*, 64(8), 823-829.
- Chen, Fang Fang, Sousa, Karen H. and West, Stephen G. (2005). Testing Measurement Invariance of Second-Order Factor Models. *Structural Equation Modeling: A Multidisciplinary Journal*, 12(3), 471-492.
- Chen, Feinian, Curran, Patrick J., Bollen, Kenneth A., Kirby, James and Paxton, Pamela. (2008). An Empirical Evaluation of the Use of Fixed Cutoff Points in Rmse Test Statistic in Structural Equation Models. *Sociological Methods Research*, 36(4), 462-494.
- Chen, Pei-Yu and Hitt, Lorin M. (2002). Measuring Switching Costs and the Determinants of Customer Retention in Internet-Enabled Businesses: A Study of the Online Brokerage Industry. *Information Systems Research*, 13(3), 255-274.
- Chen, Pei-Yu and Hitt, Lorin M. (2006). Information Technology and Switching Costs. In Terrence Hendershott (Ed.), *Handbook in Information Systems* (Vol. 1, pp. 437-467): Elsevier Science Ltd.
- Chen, Zhan. (2003). *Consumers' Value Perception of an E-Store and Its Impact on E-Store Loyalty Intention*. Ph.D., Purdue University, Indiana.



## References

- Cheung, Christy M. K. and Lee, Matthew K. O. (2005). The Asymmetric Effect of Web Site Attribute Performance on Web Satisfaction: An Empirical Study. *e-Service Journal*, 3(3), 65–86.
- Cheung, Christy M. K. and Lee, Matthew K. O. (2006). Understanding Consumer Trust in Internet Shopping: A Multidisciplinary Approach. *Journal of the American Society for Information Science and Technology*, 57(4), 479.
- Cheung, Gordon W. and Lau, Rebecca S. (2008). Testing Mediation and Suppression Effects of Latent Variables: Bootstrapping with Structural Equation Models. *Organizational Research Methods*, 11(2), 296-325.
- Cheung, Gordon W. and Rensvold, Roger B. (2002). Evaluating Goodness-of-Fit Indexes for Testing Measurement Invariance. *Structural Equation Modeling: A Multidisciplinary Journal*, 9(2), 233-255.
- Childers, Terry L., Carr, Christopher L., Peck, Joann and Carson, Stephen. (2001). Hedonic and Utilitarian Motivations for Online Retail Shopping Behavior. *Journal of Retailing*, 77(4), 511-535.
- Chin, Wynne W. (1998a). Issues and Opinion on Structural Equation Modeling. *Management Information Systems Quarterly*, 22(1), 7-16.
- Chin, Wynne W. (1998b). The Partial Least Squares Approach to Structural Equation Modelling. In George A. Marcoulides (Ed.), *Modern Methods for Business Research* (pp. 295-336). Mahwah, N.J.: Lawrence Erlbaum.
- Chisnall, Peter M. (2007). Mail and Internet Surveys: The Tailored Design Method. [Book Review]. *Journal of Advertising Research*, 47(2), 207-208.
- Chou, Chih-Ping, Bentler, P. M. and Satorra, Albert (1991). Scaled Test Statistics and Robust Standard Errors for Nonnormal Data in Covariance Structure-Analysis - a Monte-Carlo Study. *British Journal of Mathematical and Statistical Psychology*, 44, 347-357.

## References

- Churchill, Gilbert A. (1979). A Paradigm for Developing Better Measures of Marketing Constructs. *Journal of Marketing Research*, 16(1), 64-73.
- Churchill, Gilbert A. and Iacobucci, Dawn. (2005). *Marketing Research: Methodological Foundations* (9th ed. ed.). Ohio: South-Western.
- Churchill, Gilbert A. and Peter, J. Paul. (1984). Research Design Effects on the Reliability of Rating-Scales - a Meta-Analysis. *Journal of Marketing Research*, 21(4), 360-375.
- Clements, Alison. (2011). UK Will Lead Ecommerce Sales in Europe for Next Five Years Says Forrester. Retrieved from Internet Retailing website: <http://www.internetretailing.net/2011/03/uk-will-lead-ecommerce-sales-in-europe-for-next-five-years-says-forrester/>
- Colgate, Mark and Hedge, Rachel. (2001). An Investigation into the Switching Process in Retail Banking Services. *The International Journal of Bank Marketing*, 19(4/5), 201.
- Colgate, Mark R. and Lang, Bodo. (2001). Switching Barriers in Consumer Markets: An Investigation of the Financial Services Industry. *Journal of Consumer Marketing*, 18(4), 332-347.
- Colgate, Mark, Tong, Vicky Thuy-Uyen, Lee, Christina Kwai-Choi and Farley, John U. (2007). Back from the Brink: Why Customers Stay. *Journal of Service Research*, 9(3), 211-228.
- Collis, Jill and Hussey, Roger. (2003). *Business Research, a Practical Guide for Undergraduate and Postgraduate Students*. Bristol: Aarontype Ltd.
- Cook, Karen S. and Emerson, Richard M. (1984). Exchange Networks and the Analysis of Complex Organizations. *Research in the Sociology of Organizations*, 3, 1-30.

## References

- Cook, Karen S. and Rice, Eric. (2006). Social Exchange Theory. In John D. DeLamater (Ed.), *Handbook of Social Psychology* (pp. 53-76). New York: Springer.
- Corstjens, Marcel and Lal, Rajiv. (2000). Building Store Loyalty through Store Brands. *Journal of Marketing Research*, 37(3), 281-291.
- Cortina, Jose M. (1993). What Is Coefficient Alpha? An Examination of Theory and Applications. *Journal of Applied Psychology*, 78(1), 98-104.
- Cortina, Jose M., Chen, Gilad and Dunlap, William P. (2001). Testing Interaction Effects in LISREL: Examination and Illustration of Available Procedures. *Organizational Research Methods*, 4(4), 324-360.
- Cote, Joseph, Netemeyer, Richard and Bentler, Peter. (2001). Structural Equations Modeling: Improving Model Fit by Correlating Errors. *Journal of Consumer Psychology*, 10(1&2), 87-88.
- Cronbach, Lee J. (1951). Coefficient Alpha and the Internal Structure of Tests. *Psychometrika*, 31, 93-96.
- Cronin, Joseph J., Brady, Michael K. and Hult, G. Tomas M. (2000). Assessing the Effects of Quality, Value, and Customer Satisfaction on Consumer Behavioral Intentions in Service Environments. *Journal of Retailing*, 76(2), 193-218.
- Cronin, Joseph J. and Taylor, Steven A. (1992). Measuring Service Quality: A Reexamination and Extension. *Journal of Marketing*, 56(3), 55-68.
- Crosby, Lawrence A., Evans, Kenneth R. and Cowles, Deborah. (1990). Relationship Quality in Services Selling: An Interpersonal Influence Perspective. *Journal of Marketing*, 54(3), 68-81.
- Cudeck, Robert and Browne, Michael W. (1983). Cross-Validation of Covariance-Structures. *Multivariate Behavioral Research*, 18(2), 147-168.

## References

- Curran, James M. and Meuter, Matthew L. (2007). Encouraging Existing Customers to Switch to Self-Service Technologies: Put a Little Fun in Their Lives. *Journal of Marketing Theory and Practice*, 15(4), 283-298.
- Danaher, Peter J., Wilson, Isaac W. and Davis, Robert A. (2003). A Comparison of Online and Offline Consumer Brand Loyalty. *Marketing Science*, 22(4), 461-476.
- Davis, Robert, Buchanan-Oliver, Margo and Brodie, Roderick J. (2000). Retail Service Branding in Electronic-Commerce Environments. *Journal of Service Research*, 3(2), 178-186.
- de Leeuw, Edith Desirée and Hox, Joop J. (2008). Self-Administered Questionnaire: Mail Surveys and Other Applications. In Edith Desirée De Leeuw, Joop J. Hox and Don A. Dillman (Eds.), *International Handbook of Survey Methodology* (pp. 239-263). New York: L. Erlbaum Associates.
- de Leeuw, Edith Desirée, Hox, Joop J. and Dillman, Don A. (2008). *International Handbook of Survey Methodology*. New York: L. Erlbaum Associates.
- Diamantopoulos, Adamantios and Siguaw, Judy A. (2000). *Introducing LISREL: A Guide for the Uninitiated*. London: SAGE.
- Diamantopoulos, Adamantios and Winklhofer, Heidi M. (2001). Index Construction with Formative Indicators: An Alternative to Scale Development. *Journal of Marketing Research*, 38(2), 269-277.
- Dick, Alan and Basu, Kunal. (1994). Customer Loyalty: Toward an Integrated Conceptual Framework. *Journal of the Academy of Marketing Science*, 22(2), 99-113.
- Dill, William R. (1964). Desegregation or Integration? Comments About Contemporary Research on Organizations. In William W. Cooper,

## References

- Harold J. Leavitt and Maynard W. Shelly (Eds.), *New Perspectives in Organization Research* (pp. 39–52). New York: Wiley.
- Dillman, Don A. (1991). The Design and Administration of Mail Surveys. *Annual Review of Sociology*, 17(1), 225-249.
- Dillman, Don A. (2000). *Mail and Internet Surveys: The Tailored Design Method* (2nd ed. ed.). New York: John Wiley & Sons.
- Dillman, Don A., Phelps, Glenn, Tortora, Robert, Swift, Karen, Kohrell, Julie, Berck, Jodi and Messera, Benjamin L. (2009). Response Rate and Measurement Differences in Mixed Mode Surveys Using Mail, Telephone, Interactive Voice Response (Ivr) and the Internet. *Social Science Research*, 38(1), 1-8.
- Dillman, Don A., Smyth, Jolene D. and Christian, Leah Melani. (2009). *Internet, Mail, and Mixed-Mode Surveys: The Tailored Design Method* (3rd ed ed.). New Jersey: John Wiley & Sons.
- Ding, Lin, Velicer, Wayne F. and Harlow, Lisa L. (1995). Effects of Estimation Methods, Number of Indicators Per Factor, and Improper Solutions on Structural Equation Modeling Fit Indices. *Structural Equation Modeling: A Multidisciplinary Journal*, 2(2), 119 - 143.
- Donthu, Naveen and Garcia, Adriana. (1999). The Internet Shopper. *Journal of Advertising Research*, 39(3), 52-58.
- Dwyer, F. Robert, Schurr, Paul H. and Oh, Sejo. (1987). Developing Buyer-Seller Relationships. *Journal of Marketing*, 51(2), 11-27.
- Dynan, Karen E. (2000). Habit Formation in Consumer Preferences: Evidence from Panel Data. *American Economic Review*, 90(3), 391-406.
- Economist. (2000). Define and Sell: Where E-Commerce Wins Hands Down, and Where It Doesn't. Retrieved from The Economist website: <http://www.economist.com/node/285533>

## References

- Efron, Bradley. (1979). Bootstrap Methods: Another Look at the Jackknife. *Annals of Statistics*, 7(1), 1-26.
- Efron, Bradley. (1987). Better Bootstrap Confidence Intervals. *Journal of the American Statistical Association*, 82(397), 171-185.
- Efron, Bradley and Tibshirani, Robert J. (1982). *An Introduction to the Bootstrap*. New York: Chapman and Hall.
- Emanuelsson, Erik and Uhlén, Viktor Skoglund. (2007). *Virtual Switching Barriers: Switching Barriers Customer Satisfaction as Predictors of Customer Loyalty for Online Retailers*. Master, Handelshögskolan i Stockholm, Stockholm.
- Emerson, Richard M. (1962). Power-Dependence Relations. *American Sociological Review*, 27(1), 31-41.
- Emerson, Richard M. (1972). Exchange Theory, Part I: A Psychological Basis for Social Exchange. In Joseph Berger, Morris Zelditch Jr. and B. Anderson (Eds.), *Sociological Theories in Progress* (pp. 38-57). Boston: Houghton Mifflin.
- Evans, Joel R. and Mathur, Anil. (2005). The Value of Online Surveys. *Internet Research*, 15(2), 195 - 219.
- Evanschitzky, Heiner and Wunderlich, Maren. (2006). An Examination of Moderator Effects in the Four-Stage Loyalty Model. *Journal of Service Research*, 8(4), 330-345.
- Experian-Hitwise. (2009). IMRG-Hitwise Hot Shops List, November 2009. *Experian Hitwise 2009 Press Releases*. Retrieved from <http://www.hitwise.com/uk/press-centre/press-releases/2009/imrg-hot-shops-nov-09/>
- Falk, Tomas, Hammerschmidt, Maik and Schepers, Jeroen J. L. (2010). The Service Quality-Satisfaction Link Revisited: Exploring Asymmetries and

- Dynamics. *Journal of the Academy of Marketing Science*, 38(3), 288-302.
- Fan, Xitao and Sivo, Stephen A. (2009). Using  $\Delta$ goodness-of-Fit Indexes in Assessing Mean Structure Invariance. *Structural Equation Modeling: A Multidisciplinary Journal*, 16(1), 54 - 69.
- Fan, Xitao, Thompson, Bruce and Wang, Lin. (1999). Effects of Sample Size, Estimation Methods, and Model Specification on Structural Equation Modeling Fit Indexes. *Structural Equation Modeling: A Multidisciplinary Journal*, 6(1), 56 - 83.
- Farrell, Andrew M. (2010). Insufficient Discriminant Validity: A Comment on Bove, Pervan, Beatty, and Shiu (2009). *Journal of Business Research*, 63(3), 324-327.
- Farrell, Joseph and Klemperer, Paul. (2006). Coordination and Lock-In: Competition with Switching Costs and Network Effects. *CEPR Discussion Paper No. 5798*. Retrieved from <http://ssrn.com/paper=936412>
- Farrell, Joseph and Klemperer, Paul. (2007). Coordination and Lock-In: Competition with Switching Costs and Network Effects. In M. Armstrong and R. Porter (Eds.), *Handbook of Industrial Organization* (Vol. 3, pp. 1967-2072). North-Holland: Elsevier B. V.
- Farrell, Joseph and Shapiro, Carl. (1988). Dynamic Competition with Switching Costs. *The RAND Journal of Economics*, 19(1), 123-137.
- Field, Andy. (2005). *Discovering Statistics Using SPSS* (2nd ed.). London: Sage Publications Ltd.
- Fink, Arlene. (1995). *The Survey Kit*. Thousand Oaks, CA: Sage Publication.
- Fornell, Claes. (1992). A National Customer Satisfaction Barometer: The Swedish Experience. *Journal of Marketing*, 56(1), 6-21.

## References

- Fornell, Claes, Johnson, Michael D., Anderson, Eugene W., Cha, Jaesung and Bryant, Barbara Everitt. (1996). The American Customer Satisfaction Index: Nature, Purpose, and Findings. *Journal of Marketing*, 60(4), 7-18.
- Fornell, Claes and Larcker, David F. (1981). Evaluating Structural Equation Models with Unobservable Variables and Measurement Error. *Journal of Marketing Research*, 18(1), 39-50.
- Forsythe, Sandra M. and Shi, Bo. (2003). Consumer Patronage and Risk Perceptions in Internet Shopping. *Journal of Business Research*, 56(11), 867-875.
- Frazier, Gary L. (1983). On the Measurement of Interfirm Power in Channels of Distribution. *Journal of Marketing Research*, 20(May), 158-166.
- Frazier, Patricia A., Tix, Andrew P. and Barron, Kenneth E. (2004). Testing Moderator and Mediator Effects in Counseling Psychology Research. *Journal of Counseling Psychology*, 51(1), 115-134.
- Friedman, Thomas L. (1999, Feb. 26). Amazon.You, *New York Times*.
- Fuentes-Blasco, Maria, Saura, Irene-Gil, Berenguer-Contríacut, Gloria and Moliner-Velaacuteczquez, Beatriz. (2010). Measuring the Antecedents of E-Loyalty and the Effect of Switching Costs on Website. *The Service Industries Journal*, 30(11), 1837 - 1852.
- Fujii, Satoshi and Kitamura, Ryuichi. (2003). What Does a One-Month Free Bus Ticket Do to Habitual Drivers? An Experimental Analysis of Habit and Attitude Change. *Transportation*, 30(1), 81-95.
- Gan, Li, Gu, Bin, Jarvenpaa, Sirkka and Yang, Geng. (2009). *Habit Formation in Online Communities*. Paper presented at the ICIS 2009 Proceedings.
- Ganesh, Jaishankar, Arnold, Mark J. and Reynolds, Kristy E. (2000). Understanding the Customer Base of Service Providers: An



## References

- Examination of the Differences between Switchers and Stayers. *Journal of Marketing*, 64(3), 65-87.
- Garbarino, Ellen and Johnson, Mark S. (1999). The Different Roles of Satisfaction, Trust, and Commitment in Customer Relationships. *Journal of Marketing*, 63(2), 70-87.
- Garland, Ron and Gendall, Philip. (2004). Testing Dick and Basu's Customer Loyalty Model. *Australasian Marketing Journal*, 12(3), 81-87.
- Garson, David G. (2009, 18 November 2009). Structural Equation Modeling. Retrieved 25 February 2010, from <http://faculty.chass.ncsu.edu/garson/PA765/structur.htm#concepts>
- Garver, Michael S. and Mentzer, John T. (1999). Logistics Research Methods: Employing Structural Equation Modeling to Test for Construct Validity. *Journal of Business Logistics*, 20(1), 33-57.
- Gefen, David. (2002). Customer Loyalty in E-Commerce. *Journal of the Association for Information Systems*, 3, 27-51.
- Gefen, David. (2003). TAM or Just Plain Habit: A Look at Experienced Online Shoppers. *Journal of End User Computing*, 15(3), 1-13.
- Gefen, David and Straub, Detmar W. (2004). Consumer Trust in B2C E-Commerce and the Importance of Social Presence: Experiments in E-Products and E-Services. *Omega*, 32(6), 407-424.
- Gerbing, David W. and Anderson, James C. (1988). An Updated Paradigm for Scale Development Incorporating Unidimensionality and Its Assessment. *Journal of Marketing Research*, 25(2), 186-192.
- Goode, Mark M.H. and Harris, Lloyd C. (2007). Online Behavioural Intentions: An Empirical Investigation of Antecedents and Moderators. *European Journal of Marketing*, 41(5-6), 512-536.

## References

- Gorman, W. M. (1967). Tastes, Habits and Choices. *International Economic Review*, 8(2), 218-222.
- Gosling, Samuel D., Vazire, Simine, Srivastava, Sanjay and John, Oliver P. (2004). Should We Trust Web-Based Studies? A Comparative Analysis of Six Preconceptions About Internet Questionnaires. *American Psychologist*, 59(2), 93-104.
- Gremler, Dwayne D. and Brown, Stephen W. (1996). Service Loyalty: Its Nature, Importance, and Implications. In B. Edvardsson, S. W. Brown and R. Johnston (Eds.), *Advancing Service Quality: A Global Perspective* (pp. 171-180): International Service Quality Association.
- Gremler, Dwayne David. (1995). *The Effect of Satisfaction, Switching Costs, and Interpersonal Bonds on Service Loyalty*. Ph.D., Arizona State University, Arizona.
- Grewal, Dhruv, Munger, Jeanne L., Iyer, Gopalkrishnan R. and Levy, Michael. (2003). The Influence of Internet Retailing Factors on Price Expectations. *Psychology and Marketing*, 20(6), 477-493.
- Griffis, Stanley E., Goldsby, Thomas J. and Cooper, Martha. (2003). Web-Based Surveys: A Comparison of Response, Data, and Cost. *Journal of Business Logistics*, 24(2), 237-258.
- Grönroos, Christian. (2006). Adopting a Service Logic for Marketing. *Marketing Theory*, 6(3), 317-333.
- Grönroos, Christian. (2008). Service Logic Revisited: Who Creates Value? And Who Co-Creates? *European Business Review*, 20(4), 298-314.
- Guariglia, Alessandra and Rossi, Mariacristina. (2002). Consumption, Habit Formation, and Precautionary Saving: Evidence from the British Household Panel Survey. *Oxford Economic Papers*, 54(1), 1-19.

## References

- Guiltinan, Joseph P. (1989). *A Classification of Switching Costs with Implications for Relationship Marketing*. Paper presented at the AMA Winter Educators' Conference: Marketing Theory and Practice.
- Haenlein, Michael and Kaplan, Andreas M. (2004). A Beginner's Guide to Partial Least Squares Analysis. *Understanding Statistics*, 3(4), 283–297.
- Hair, Joseph F., Black, William C., Babin, Barry J. and Anderson, Rolph E. (2010). *Multivariate Data Analysis: A Global Perspective* (7th ed.). New Jersey: Pearson Prentice Hall.
- Harnett, Donald L. and Murphy, James L. (1985). *Statistical Analysis for Business and Economics* (3rd Ed ed.). Reading, Massachusetts: Addison-Wesley Publishing Company.
- Harris, Lloyd C. and Goode, Mark M. H. (2004). The Four Levels of Loyalty and the Pivotal Role of Trust: A Study of Online Service Dynamics. *Journal of Retailing*, 80(2), 139-158.
- Hattie, John. (1985). Methodology Review: Assessing Unidimensionality of Tests and Items. *Applied Psychological Measurement*, 9(2), 139-164.
- Haugtvedt, Curtis P., Machleit, Karen A. and Yalch, Richard (Eds.). (2005). *Online Consumer Psychology: Understanding and Influencing Consumer Behavior in the Virtual World*. New Jersey: Lawrence Erlbaum Associates, Inc.
- Hauser, John R., Simester, Duncan I. and Wernerfelt, Birger. (1994). Customer Satisfaction Incentives. *Marketing Science*, 13(4), 327-350.
- Hayes, Andrew F. (2009). Beyond Baron and Kenny: Statistical Mediation Analysis in the New Millennium. *Communication Monographs*, 76(4), 408-420.

## References

- Heide, Jan B. and Weiss, Allen M. (1995). Vendor Consideration and Switching Behavior for Buyers in High-Technology Markets. *Journal of Marketing*, 59(3), 30-43.
- Heien, Dale and Durham, Cathy. (1991). A Test of the Habit Formation Hypothesis Using Household Data. *The Review of Economics and Statistics*, 73(2), 189-199.
- Hennig-Thurau, Thorsten, Gwinner, Kevin P. and Gremler, Dwayne D. (2000). Why Customers Build Relationships with Companies--and Why Not. In Thorsten Hennig-Thurau and Ursula Hansen (Eds.), *Relationship Marketing: Gaining Competitive Advantage through Customer Satisfaction and Customer Retention* (pp. 369-391). Berlin: Springer.
- Henseler, Jörg. (2010). Structural Equation Modelling Workshop. Warwick Business School, University of Warwick, Coventry.
- Henseler, Jörg and Chin, Wynne W. (2010). A Comparison of Approaches for the Analysis of Interaction Effects between Latent Variables Using Partial Least Squares Path Modeling. *Structural Equation Modeling: A Multidisciplinary Journal*, 17(1), 82-109.
- Herche, Joel and Engelland, Brian. (1996). Reversed-Polarity Items and Scale Unidimensionality. *Journal of the Academy of Marketing Science*, 24(4), 366-374.
- Heskett, James L. (1990). Rethinking Strategy for Service Management. In David E. Bowen, Richard B. Chase and Thomas G. Cummings (Eds.), *Service Management Effectiveness : Balancing Strategy, Organization and Human Resources, Operations, and Marketing*. San Francisco: Jossey-Bass.
- Hildebrandt, Lutz. (1987). Consumer Retail Satisfaction in Rural Areas: A Reanalysis of Survey Data. *Journal of Economic Psychology*, 8(1), 19-42.

## References

- Hinkin, Timothy R. (1995). A Review of Scale Development Practices in the Study of Organizations. *Journal of Management*, 21(5), 967-988.
- Hirschman, Albert O. (1970). *Exit, Voice and Loyalty: Responses to Decline in Firms, Organizations, and States*. Cambridge, MA: Harvard University Press.
- Hoffman, Donna L. and Novak, Thomas P. (2009). Flow Online: Lessons Learned and Future Prospects. *Journal of Interactive Marketing*, 23, 23-34.
- Hoffman, Donna L., Novak, Thomas P. and Peralta, Marcos. (1999). Building Consumer Trust Online. *Communications of the ACM*, 42(4), 80-85.
- Holland, Jonna and Baker, Stacey Menzel. (2001). Customer Participation in Creating Site Brand Loyalty. *Journal of Interactive Marketing*, 15(4), 34-45.
- Holloway, Betsy B. (2003). *The Role of Switching Barriers in the Online Service Recovery Process*. Dissertation/Thesis, Unpublished. The University of Alabama.
- Holloway, Betsy B. and Beatty, Sharon E. (2003). Service Failure in Online Retailing: A Recovery Opportunity. *Journal of Service Research*, 6(1), 92-105.
- Homans, George C. (1958). Social Behavior as Exchange. *American Journal of Sociology*, 63(6), 597-606.
- Homans, George C. (1973). *Social Behaviour: Its Elementary Forms*. London: Routledge & Kegan Paul PLC.
- Hong, Soongeun, Kim, Jeoungkun and Lee, Heeseok. (2008). Antecedents of Use-Continuance in Information Systems: Toward an Integrative View. *The Journal of Computer Information Systems*, 48(3), 61-73.

## References

- Hoyle, Rick H. (1995). The Structural Equation Modeling Approach: Basic Concepts and Fundamental Issues. In Rick H. Hoyle (Ed.), *Structural Equation Modeling: Concepts, Issues, and Application* (pp. 1-15). Thousand Oak, CA: Sage Publication.
- Hoyle, Rick H. and Panter, Abigail T. (1995). Writing About Structural Equation Models. In Rick H. Hoyle (Ed.), *Structural Equation Modeling: Concepts, Issues and Applications* (pp. 158-176). Thousand Oaks, CA: Sage Publication.
- Hu, Li-tze and Bentler, Peter M. (1998). Fit Indices in Covariance Structure Modeling: Sensitivity to Underparameterized Model Misspecification. *Psychological Methods*, 3, 424-453.
- Hu, Li-tze and Bentler, Peter M. (1999). Cutoff Criteria for Fit Indexes in Covariance Structure Analysis: Conventional Criteria Versus New Alternatives. *Structural Equation Modeling*, 6(1), 1-55.
- Hu, Li-tze, Bentler, Peter M. and Kano, Yutaka. (1992). Can Test Statistics in Covariance Structure Analysis Be Trusted? *Psychological Bulletin*, 112(2), 351-362.
- Huang, Ming-Hui and Yu, Shihti. (1999). Are Consumers Inherently or Situationally Brand Loyal? A Set Interrelation Account for Conscious Brand Loyalty and Nonconscious Inertia. *Psychology and Marketing*, 16(6), 523-544.
- Hudson, Laurel Anderson and Ozanne, Julie L. (1988). Alternative Ways of Seeking Knowledge in Consumer Research. *Journal of Consumer Research*, 14(4), 508-521.
- Hulin, Charles, Cudeck, Robert, Netemeyer, Richard, Dillon, William R., McDonald, Rodericd and Bearden, William. (2001). Measurement. *Journal of Consumer Psychology*, 10(1/2), 55-69.

## References

- Hunt, Shelby D., Sparkman, Richard D., Jr. and Wilcox, James B. (1982). The Pretest in Survey Research: Issues and Preliminary Findings. *Journal of Marketing Research*, 19(2), 269-273.
- Hunter, John E. and Gerbing, David W. (Eds.). (1982). *Unidimensional Measurement, Second Order Factor Analysis, and Causal Models*. Greenwich: JAI Press.
- Jaccard, James and Wan, Choi K. (1995). Measurement Error in the Analysis of Interaction Effects between Continuous Predictors Using Multiple Regression: Multiple Indicator and Structural Equation Approaches. *Psychological Bulletin*, 117(2), 348-357.
- Jackson, Barbara B. (1985). *Winning and Keeping an Industrial Customers*. Lexington: MA: Lexington Books.
- Jarvenpaa, Sirkka L., Tractinsky, Noam and Vitale, Michael. (2000). Consumer Trust in an Internet Store. *Information Technology and Management*, 1(1/2), 45-71.
- Jarvenpaa, Sirkka, L and Todd, Peter, A. (1996). Consumer Reactions to Electronic Shopping on the World Wide Web. *International Journal of Electronic Commerce*, 1(2), 59-88.
- Ji, Mindy F. and Wood, Wendy. (2007). Purchase and Consumption Habits: Not Necessarily What You Intend. *Journal of Consumer Psychology (Lawrence Erlbaum Associates)*, 17(4), 261-276.
- Johnson, Denis J. and Rusbult, Caryl E. (1989). Resisting Temptation: Devaluation of Alternative Partners as a Means of Maintaining Commitment in Close Relationships. *Journal of Personality and Social Psychology*, 57(6), 967-980.
- Johnson, Eric J., Bellman, Steven and Lohse, Gerald L. (2003). Cognitive Lock-in and the Power Law of Practice. *Journal of Marketing*, 67(2), 62-75.

## References

- Johnson, Eric J., Moe, Wendy W., Fader, Peter S., Bellman, Steven and Lohse, Gerald L. (2004). On the Depth and Dynamics of Online Search Behavior. *Management Science*, 50(3), 299-308.
- Johnson, Michael D., Herrmann, Andreas and Huber, Frank. (2006). The Evolution of Loyalty Intentions. *Journal of Marketing*, 70(2), 122-132.
- Johnson, Michael D. and Selnes, Fred. (2004). Customer Portfolio Management: Toward a Dynamic Theory of Exchange Relationships. *Journal of Marketing*, 68(2), 1-17.
- Johnson, Michael P. (1982). Social and Cognitive Features of the Dissolution of Commitment to Relationships. In S. Duck (Ed.), *Personal Relationships* (Vol. 4, pp. 51-73). New York: Academic Press.
- Johnson, Michael P., Caughlin, John P. and Huston, Ted L. (1999). The Tripartite Nature of Marital Commitment: Personal, Moral, and Structural Reasons to Stay Married. *Journal of Marriage and the Family*, 61(1), 160-177.
- Jones, Michael A. (1998). *Satisfaction and Repurchase Intentions in the Service Industry: The Moderating Influence of Switching Barriers*. Ph.D., The University of Alabama, United States -- Alabama.
- Jones, Michael A., Mothersbaugh, David L. and Beatty, Sharon E. (2000). Switching Barriers and Repurchase Intentions in Services. *Journal of Retailing*, 76(2), 259-274.
- Jones, Michael A., Mothersbaugh, David L. and Beatty, Sharon E. (2002). Why Customers Stay: Measuring the Underlying Dimensions of Services Switching Costs and Managing Their Differential Strategic Outcomes. *Journal of Business Research*, 55(6), 441-450.
- Jones, Michael A., Reynolds, K. E., Mothersbaugh, D. L. and Beatty, S. E. (2007). The Positive and Negative Effects of Switching Costs on Relational Outcomes. *Journal of Service Research*, 9(4), 335-355.



## References

- Jones, Thomas O. and Sasser, W. Earl. (1995). Why Satisfied Customers Defect. *Harvard business review*, 73(6), 88-91.
- Jöreskog, Karl. G. and Yang, F. (1996). Nonlinear Structural Equation Models: The Kenny-Judd Model with Interaction Effects. In Randall E. Schumacker and George A. Marcoulides (Eds.), *Advanced Structural Equation Modeling: Issues and Techniques* (pp. 57–88). Hillsdale, NJ: Lawrence Erlbaum.
- Jöreskog, Karl G. (1971). Statistical Analysis of Sets of Congeneric Tests. *Psychometrika*, 36(2), 109-133.
- Jöreskog, Karl G. and Sörbom, D. (2001). *LISREL 8: User Reference Guide*. Lincolnwood: Scientific Software International, Inc.
- Judd, Charles M., McClelland, Gary H. and Culhane, Sara E. (1995). Data Analysis: Continuing Issues in the Everyday Analysis of Psychological Data. *Annual Review of Psychology*, 46, 433-465.
- Julander, Claes-Robert and Söderlund, Magnus. (2003). Effects of Switching Barriers on Satisfaction, Repurchase Intentions and Attitudinal Loyalty *Working paper 2003* (Vol. 1): Stockholm School of Economics.
- Kahle, Lynn R. and Beatty, Sharon E. (1987). The Task Situation and Habit in the Attitude-Behavior Relationship: A Social Adaptation View. *Journal of Social Behavior and Personality*, 2(2), 219-232.
- Kaiser, Henry F. (1974). An Index of Factorial Simplicity. *Psychometrika*, 39(1), 31-36.
- Keaveney, Susan M. (1995). Customer Switching Behavior in Service Industries: An Exploratory Study. *Journal of Marketing*, 59(2), 71-82.
- Keaveney, Susan M. and Parthasarathy, Madhavan. (2001). Customer Switching Behavior in Online Services: An Exploratory Study of the

## References

- Role of Selected Attitudinal, Behavioral, and Demographic Factors. *Journal of the Academy of Marketing Science*, 29(4), 374-390.
- Kelley, Harold H. (1983). Love and Commitment. In Harold H. Kelley, Ellen Berscheid, Andrew Christensen, John H. Harvey, Ted L. Huston, George Levinger, Evie McClintock, Letitia A. Peplau and Donald R. Peterson (Eds.), *Close Relationships* (pp. 265-314). New York: W.H. Freeman and Company.
- Kenny, David A. (1979). *Correlation and Causality*. New York: Wiley.
- Kenny, David A. (1998). Multiple Factor Models. Retrieved 12 April, 2010, from <http://davidakenny.net/cm/mfactor.htm>
- Kenny, David A. (2008). Reflections on Mediation. *Organizational Research Methods*, 11(2), 353-358.
- Kenny, David A. (2010, 22 January). Structural Equation Modeling. *Measuring Model Fit*. Retrieved 25 February 2010, from <http://davidakenny.net/cm/fit.htm>
- Kenny, David A. and Judd, Charles M. (1984). Estimating the Nonlinear and Interactive Effects of Latent Variables. *Psychological Bulletin*, 96(1), 201-210.
- Khare, Adwait and Inman, J. Jeffrey. (2005). Habit Regimes in Consumption. *Advances in Consumer Research*, 32, 35-36.
- Khare, Adwait and Inman, J. Jeffrey. (2006). Habitual Behavior in American Eating Patterns: The Role of Meal Occasions. *Journal of Consumer Research*, 32(4), 567-575.
- Kim, Byung-Do, Shi, Mengze and Srinivasan, Kannan. (2001). Reward Programs and Tacit Collusion. *Marketing Science*, 20(2), 99-120.

## References

- Kim, H.W., Choi, S. and Kim, K.H. (2010). Examining Online Switching Costs over Search Product and Experience Product Contexts. *Pacific Asia Conference on Information Systems*. Retrieved from [www.pacis-net.org/file/2010/S06-03.pdf](http://www.pacis-net.org/file/2010/S06-03.pdf)
- Kim, Hee-Woong and Toh, Darren Ee Se. (2006). *Moderating the Price Sensitivity of Online Customers*. Paper presented at the The 8th IEEE International Conference on E-Commerce Technology and The 3rd IEEE International Conference on Enterprise Computing, E-Commerce, and E-Services, Washington, DC.
- Kim, Moon-Koo, Park, Myeong-Cheol and Jeong, Dong-Heon (2004). The Effects of Customer Satisfaction and Switching Barrier on Customer Loyalty in Korean Mobile Telecommunication Services. *Telecommunications Policy*, 28(2), 145-159.
- Kim, Sung S. and Son, Jai-Yeol. (2009). Out of Dedication or Constraint? A Dual Model of Post-Adoption Phenomena and Its Empirical Test in the Context of Online Services. *MIS Quarterly*, 33(1), 49-70.
- Klemperer, Paul. (1987). Markets with Consumer Switching Costs. *Quarterly Journal of Economics*, 102(2), 375-394.
- Klemperer, Paul. (1995). Competition When Consumers Have Switching Costs: An Overview with Applications to Industrial Organization, Macroeconomics, and International Trade. *Review of Economic Studies*, 62(213), 515-539.
- Kline, Rex B. (2005). *Principles and Practice of Structural Equation Modeling* (2nd ed.). New York: Guilford Press.
- Kollock, Peter. (1994). The Emergence of Exchange Structures: An Experimental Study of Uncertainty, Commitment, and Trust. *The American Journal of Sociology*, 100(2), 313-345.

## References

- Korgaonkar, Pradeep K. and Wolin, Lori D. (1999). A Multivariate Analysis of Web Usage. *Journal of Advertising Research*, 39(2), 53-68.
- Koufteros, Xenophon, Babbar, Sunil and Kaighobadi, Mehdi. (2009). A Paradigm for Examining Second-Order Factor Models Employing Structural Equation Modeling. *International Journal of Production Economics*, 120(2), 633-652.
- Krosnick, Jon A. (1999). Survey Research. *Annual Review of Psychology*, 50, 537-567.
- Kuhl, Julius and Beckmann, Jurgen. (1985). *Action Control: From Cognition to Behavior*. Berlin: Springer-Verlag.
- Kumar, Ajith and Dillon, William R. (1987a). The Interaction of Measurement and Structure in Simultaneous Equation Models with Unobservable Variables. *Journal of Marketing Research*, 24(1), 98-105.
- Kumar, Ajith and Dillon, William R. (1987b). Some Further Remarks on Measurement-Structure Interaction and the Unidimensionality of Constructs. *Journal of Marketing Research*, 24(4), 438-444.
- Kwon, Wi-Suk and Lennon, Sharron J. (2009). What Induces Online Loyalty? Online Versus Offline Brand Images. *Journal of Business Research*, 62(5), 557-564.
- Lam, Shun Yin, Shankar, Venkatesh, Erramilli, M. Krishna and Murthy, Bysan. (2004). Customer Value, Satisfaction, Loyalty, and Switching Costs: An Illustration from a Business-to-Business Service Context. *Journal of the Academy of Marketing Science*, 32(3), 293-311.
- Lance, Charles E. (1988). Residual Centering, Exploratory and Confirmatory Moderator Analysis, and Decomposition of Effects in Path Models Containing Interactions. *Applied Psychological Measurement*, 12(2), 163-175.

## References

- Landis, D., Triandis, H. C. and Adamopoulos, J. (1978). Habit and Behavioral Intentions as Predictors of Social Behavior. *The Journal of Social Psychology*, 106(2), 227-237.
- Lankton, Nancy K., Wilson, E. Vance and Mao, En. (2010). Antecedents and Determinants of Information Technology Habit. *Information and Management*, 47(5-6), 300-307.
- Lawler, Edward J. (2001). An Affect Theory of Social Exchange. *The American Journal of Sociology*, 107(2), 321-352.
- Lawler, Edward J., Thye, Shane R. and Yoon, Jeongkoo. (2000). Emotion and Group Cohesion in Productive Exchange. *The American Journal of Sociology*, 106(3), 616-657.
- Lee, Jonathan, Lee, Janghyuk and Feick, Lawrence. (2001). The Impact of Switching Costs on the Customer Satisfaction-Loyalty Link: Mobile Phone Service in France. *Journal of Services Marketing*, 15(1), 35-48.
- Lee, Jungwon, Kim, Jinwoo and Moon, Jae Yun. (2000). *What Makes Internet Users Visit Cyber Stores Again? Key Design Factors for Customer Loyalty*. Paper presented at the Proceedings of the SIGCHI conference on Human factors in computing systems, The Hague, The Netherlands.
- Lee, Moonkyu and Cunningham, Lawrence F. (2001). A Cost/Benefit Approach to Understanding Service Loyalty. *Journal of Services Marketing*, 15(2), 113-130.
- Levinger, George. (1991). Commitment Vs. Cohesiveness: Two Complementary Perspectives. In W. H. Jones and D. Perlman (Eds.), *Advances in Personal Relationships* (Vol. 3, pp. 145-150). London: Jessica Kingsley.
- Levinger, George. (1999). Duty toward Whom? Reconsidering Attractions and Barriers as Determinants of Commitment in a Relationship. In W. H.

## References

- Jones and J. M. Adams (Eds.), *Handbook of Interpersonal Commitment and Relationship Stability*. New York: Plenum Press.
- Levy, Deborah. (2003). Qualitative Methodology and Grounded Theory in Property Research. *Pacific Rim Property Research Journal*, 12(4), 369-388.
- Li, Dahui, Browne, Glenn J. and Chau, Patrick Y. K. (2006). An Empirical Investigation of Web Site Use Using a Commitment-Based Model. *Decision Sciences*, 37(3), 427-444.
- Li, Dahui, Browne, Glenn J. and Wetherbe, James C. (2006). Why Do Internet Users Stick with a Specific Web Site? A Relationship Perspective. *International Journal of Electronic Commerce*, 10(4), 105-141.
- Li, Dahui, Browne, Glenn J. and Wetherbe, James C. (2007). Online Consumers' Switching Behavior: A Buyer-Seller Relationship Perspective. *Journal of Electronic Commerce in Organizations*, 5(1), 30-42.
- Li, Fuzhong, Harmer, Peter, Duncan, Terry E., Duncan, Susan C., Acock, Alan and Boles, Shawn. (1998). Approaches to Testing Interaction Effects Using Structural Equation Modeling Methodology. *Multivariate Behavioral Research*, 33(1), 1-38.
- Liao, Chechen, Palvia, Prashant and Lin, Hong-Nan. (2006). The Roles of Habit and Web Site Quality in E-Commerce. *International Journal of Information Management*, 26(6), 469-483.
- Liebermann, Yehoshua and Stashevsky, Shmuel. (2002). Perceived Risks as Barriers to Internet and E-Commerce Usage. *Qualitative Market Research: An International Journal*, 5(4), 291-300.
- Limayem, Moez and Hirt, Sabine G. (2003). Force of Habit and Information Systems Usage: Theory and Initial Validation. *Journal of the Association for Information Systems*, 4, 65-97.

## References

- Limayem, Moez, Hirt, Sabine G. and Cheung, Christy M. K. (2003, June 19-21). *Habit in the Context of IS Continuance: Theory Extension and Scale Development*. Paper presented at the Eleventh European Conference on Information Systems (ECIS), Naples, Italy.
- Limayem, Moez, Hirt, Sabine G. and Cheung, Christy M. K. (2007). How Habit Limits the Predictive Power of Intention: The Case of Information Systems Continuance. *MIS Quarterly*, 31(4), 705-737.
- Little, Todd D., Bovaird, James A. and Widaman, Keith F. (2006). On the Merits of Orthogonalizing Powered and Product Terms: Implications for Modeling Interactions among Latent Variables. *Structural Equation Modeling*, 13(4), 497-519.
- Little, Todd D., Card, Noel A., Bovaird, James A., Preacher, Kristopher J. and Crandall, Christian S. (2007). Structural Equation Modeling of Mediation and Moderation with Contextual Factors. In Todd D. Little, James A. Bovaird and Noel A. Card (Eds.), *Modeling Contextual Effects in Longitudinal Studies* (pp. 207-230). Mahwah, NJ: Lawrence Erlbaum Associates.
- Liu, Yuping. (2007). The Long-Term Impact of Loyalty Programs on Consumer Purchase Behavior and Loyalty. *Journal of Marketing*, 71(4), 19-35.
- Loehlin, John C. (2004). *Latent Variable Models: An Introduction to Factor, Path, and Structural Equation Analysis* (4th ed.). Mahwah, NJ: Lawrence Erlbaum Associates.
- Lohr, Sharon. (2008). Coverage and Sampling. In Edith Desirée de Leeuw, J. J. Hox and D. A. Dillman (Eds.), *International Handbook of Survey Methodology* (pp. 97-112). New York: Lawrence Erlbaum Associates.
- MacCallum, Robert C. (1995). Model Specification: Procedures, Strategies, and Related Issues. In Rick H. Hoyle (Ed.), *Structural Equation Modeling: Concepts, Issues, and Applications* (pp. 16-36). Thousand Oaks, California: Sage Publications, Inc.

## References

- MacCallum, Robert C. and Austin, James T. (2000). Applications of Structural Equation Modeling in Psychological Research. *Annual Review of Psychology*, 51(1), 201-226.
- MacCallum, Robert C., Browne, Michael W. and Sugawara, Hazuki M. (1996). Power Analysis and Determination of Sample Size for Covariance Structure Modeling. *Psychological Methods*, 1(2), 130-149.
- Malhotra, Naresh K. (2003). *Marketing Research: An Applied Orientation* (4th ed.). New Jersey: Prentice Hall.
- Manfreda, Katja Lozar and Vehovar, Vasja. (2008). Internet Surveys. In Edith Desirée de Leeuw, Joop J. Hox and Don A. Dillman (Eds.), *International Handbook of Survey Methodology* (pp. 264-284). New York: Lawrence Erlbaum Associates.
- Mano, Haim and Oliver, Richard L. (1993). Assessing the Dimensionality and Structure of the Consumption Experience: Evaluation, Feeling, and Satisfaction. *Journal of Consumer Research*, 20(3), 451-466.
- Marsh, Herbert W. (1987). The Factorial Invariance of Responses by Males and Females to a Multidimensional Self-Concept Instrument: Substantive and Methodological Issues. *Multivariate Behavioral Research*, 22(4), 457-480.
- Marsh, Herbert W., Wen, Zhonglin, Hau, Kit-Tai, Little, Todd D., Bovaird, James A. and Widaman, Keith F. (2007). Unconstrained Structural Equation Models of Latent Interactions: Contrasting Residual- and Mean-Centered Approaches. *Structural Equation Modeling: A Multidisciplinary Journal*, 14(4), 570-580.
- Martin, Boehm. (2008). Determining the Impact of Internet Channel Use on a Customer's Lifetime. *Journal of Interactive Marketing*, 22(3), 2-22.



## References

- Mathieu, John E., Tannenbaum, Scott I. and Salas, Eduardo. (1992). Influences of Individual and Situational Characteristics on Measures of Training Effectiveness. *Academy of Management Journal*, 35(4), 828-847.
- Mathwick, Charla. (2002). Understanding the Online Consumer: A Typology of Online Relational Norms and Behavior. *Journal of Interactive Marketing*, 16(1), 40-55.
- Mazursky, David, LaBarbera, Priscilla and Aiello, Al. (1987). When Consumers Switch Brands. *Psychology and Marketing*, 4(1), 17-30.
- McDonald, Heath and Adam, Stewart. (2003). A Comparison of Online and Postal Data Collection Methods in Marketing Research. *Marketing Intelligence and Planning*, 21(2), 85-95.
- McQuitty, Shaun. (2004). Statistical Power and Structural Equation Models in Business Research. *Journal of Business Research*, 57(2), 175-183.
- Meade, Adam W., Johnson, Emily C. and Braddy, Phillip W. (2008). Power and Sensitivity of Alternative Fit Indices in Tests of Measurement Invariance. *Journal of Applied Psychology*, 93(3), 568-592.
- Menon, Satya and Kahn, Barbara. (2002). Cross-Category Effects of Induced Arousal and Pleasure on the Internet Shopping Experience. *Journal of Retailing*, 78(1), 31-40.
- Methlie, Leif B. and Nysveen, Herbjorn. (1999). Loyalty of On-Line Bank Customers. *Journal of Information Technology*, 14(4), 375-386.
- Meuter, Matthew L., Ostrom, Amy L., Bitner, Mary Jo and Roundtree, Robert. (2003). The Influence of Technology Anxiety on Consumer Use and Experiences with Self-Service Technologies. *Strategy in E-Marketing*, 56(11), 899-906.
- Meuter, Matthew L., Ostrom, Amy L., Roundtree, Robert and Bitner, Mary J. (2000). Self-Service Technologies: Understanding Customer

## References

- Satisfaction with Technology-Based Service Encounters. *Journal of Marketing*, 64(3), 50-64.
- Mintel-Oxygen. (2007, 3 January 2010). *Internet Shopping: An OFT Market Study*. Retrieved from Mintel Oxygen database. Office of Fair Trading.
- Mitchell, Vince W. (1999). Consumer Perceived Risk: Conceptualisations and Models. *European Journal of Marketing*, 33(1/2), 163-195.
- Mittal, Banwari. (1988). Achieving Higher Seat Belt Usage: The Role of Habit in Bridging the Attitude-Behavior Gap. *Journal of Applied Social Psychology*, 18(12), 993-1016.
- Mittal, Vikas and Kamakura, Wagner A. (2001). Satisfaction, Repurchase Intent, and Repurchase Behavior: Investigating the Moderating Effect of Customer Characteristics. *Journal of Marketing Research*, 38(1), 131-142.
- Mohamed, Khalifa and Vanessa, Liu. (2005). *Online Consumer Retention: Development of New Habits*. Paper presented at the Proceedings of the Proceedings of the 38th Annual Hawaii International Conference on System Sciences (HICSS'05) - Track 7 - Volume 07.
- Molm, Linda D., Takahashi, Nobuyuki and Peterson, Gretchen. (2000). Risk and Trust in Social Exchange: An Experimental Test of a Classical Proposition. *The American Journal of Sociology*, 105(5), 1396-1427.
- Moorman, Christine, Deshpandé, Rohit and Zaltman, Gerald. (1993). Factors Affecting Trust in Market Research Relationships. *Journal of Marketing*, 57(1), 81-101.
- Morgan, Robert M. and Hunt, Shelby D. (1994). The Commitment-Trust Theory of Relationship Marketing. *Journal of Marketing*, 58(3), 20-38.
- Moshkin, Nickolay V. and Shachar, Ron. (2002). The Asymmetric Information Model of State Dependence. *Marketing Science*, 21(4), 435-454.

## References

- Muncy, James A. (1996). Measuring Perceived Brand Parity. *Advances in Consumer Research*, 23(1), 411-417.
- Murray, Kyle B. and Häubl, Gerald. (2007). Explaining Cognitive Lock-In: The Role of Skill-Based Habits of Use in Consumer Choice. *Journal of Consumer Research*, 34(1), 77-88.
- Murray, Kyle B. and Häubl, Gerald. (2008). Interactive Consumer Decision Aids. In Berend Wierenga (Ed.), *Handbook of Marketing Decision Models* (pp. 55-77). New York: Springer.
- Narayandas, Das. (2005). Building Loyalty in Business Markets. *Harvard Business Review*, 83(9), 131-139.
- Ng, Ee Hong, Gupta, Sumeet and Hee-Woong, Kim. (2007). Online Customer Retention: The Resistance to Change Perspective. *ICIS 2007 Proceedings, Paper 137*, <http://aisel.aisnet.org/icis2007/2137>.
- Nielson-Online. (2009). *The Marketing Pocket Book*. Henley-On-Thames: Oxfordshire: World Advertising Research Center.
- Nielson, Charles C. (1996). An Empirical Examination of Switching Cost Investments in Business-to-Business Marketing Relationships. *Journal of Business and Industrial Marketing*, 11(6), 38-60.
- Nilssen, Tore. (1992). Two Kinds of Consumer Switching Costs. *RAND Journal of Economics*, 23(4), 579-589.
- Nunnally, Jum C. (1978). *Psychometric Theory*. New York: McGraw-Hill.
- Nunnally, Jum C. and Bernstein, Ira H. (1994). *Psychometric Theory*. New York: McGraw-Hill.
- Oakes, William. (1972). External Validity and Use of Real People as Subjects. *American Psychologist*, 27(10), 959-962.

## References

- Odin, Yorick, Odin, Nathalie and Valette-Florence, Pierre. (2001). Conceptual and Operational Aspects of Brand Loyalty: An Empirical Investigation. *Journal of Business Research*, 53(2), 75-84.
- OFCOM. (2010). UK Consumers Revealed as Early Adopters of New Technologies. *OFCOM News Releases*. Retrieved from <http://media.ofcom.org.uk/2010/12/02/uk-consumers-revealed-as-early-adopters-of-new-technologies/>
- Oliver, Richard L. (1997). *Satisfaction: A Behavioral Perspective on the Consumer*. Boston: Irwin McGraw-Hill.
- Oliver, Richard L. (1999). Whence Consumer Loyalty? *Journal of Marketing*, 63(4), 33-44.
- Orbell, Sheina, Blair, Catherine, Sherlock, Kellie and Conner, Mark. (2001). The Theory of Planned Behavior and Ecstasy Use: Roles for Habit and Perceived Control over Taking Versus Obtaining Substances. *Journal of Applied Social Psychology*, 31(1), 31-47.
- Ouellette, Judith A. and Wood, Wendy. (1998). Habit and Intention in Everyday Life: The Multiple Processes by Which Past Behavior Predicts Future Behavior. *Psychological Bulletin*, 124, 54-74.
- Pan, X., Shankar, V. and Ratchford, B.T. (2002). Price Competition between Pure Play Versus Bricks-and-Clicks E-Tailers: Analytical Model and Empirical Analysis. *Advances in Applied Microeconomics: A Research Annual*, 11, 29-61.
- Panther, Tracy and Farquhar, Jillian D. (2004). Consumer Responses to Dissatisfaction with Financial Service Providers: An Exploration of Why Some Stay While Others Switch. *Journal of Financial Services Marketing*, 8(4), 343-353.
- Parackal, Matthew. (2003). Internet-Based and Mail Survey: A Hybrid Probabilistic Survey Approach *Proceedings of the 2003 Australian Web*

## References

- Conference. Retrieved from <http://ausweb.scu.edu.au/aw03/papers/parackal/paper.html>
- Parasuraman, A. and Grewal, Dhruv. (2000). Serving Customers and Consumers Effectively in the Twenty-First Century: A Conceptual Framework and Overview. *Journal of the Academy of Marketing Science*, 28(1), 9-16.
- Parasuraman, A., Zeithaml, Valarie A. and Berry, Leonard L. (1994). Reassessment of Expectations as a Comparison Standard in Measuring Service Quality: Implications for Further Research. *Journal of Marketing*, 58(1), 111-124.
- Park, C. Whan, Feick, Lawrence and Mothersbaugh, David L. (1994). Consumer Knowledge Assessment. *Journal of Consumer Research*, 21(1), 71-82.
- Patterson, Paul G. and Smith, Tasman. (2003). A Cross-Cultural Study of Switching Barriers and Propensity to Stay with Service Providers. *Journal of Retailing*, 79(2), 107-120.
- Paulssen, Marcel and Birk, Matthias M. (2007). Satisfaction and Repurchase Behavior in a Business-to-Business Setting: Investigating the Moderating Effect of Manufacturer, Company and Demographic Characteristics. *Industrial Marketing Management*, 36(7), 983-997.
- Payne, John W., Bettman, James R. and Johnson, Eric J. (1993). *The Adaptive Decision Maker*: Cambridge University Press.
- Pedersen, Per E and Nysveen, Herbjorn. (2001). Shopbot Banking: An Exploratory Study of Customer Loyalty Effects. *International Journal of Bank Marketing*, 19(4), 146-155.
- Pedhazur, Elazar J. (1982). *Multiple Regression in Behavioral Research: Explanation and Prediction* (2nd ed.). New York; London: Holt, Rinehart and Winston.

## References

- Peter, J. Paul. (1981). Construct Validity: A Review of Basic Issues and Marketing Practices. *Journal of Marketing Research*, 18(2), 133-145.
- Ping, Robert A. (1993). The Effects of Satisfaction and Structural Constraints on Retailer Exiting, Voice, Loyalty, Opportunism, and Neglect. *Journal of Retailing*, 69(3), 320-352.
- Ping, Robert A. (1995). A Parsimonious Estimating Technique for Interaction and Quadratic Latent Variables. *Journal of Marketing Research*, 32(3), 336-347.
- Ping, Robert A. (1996). Latent Variable Interaction and Quadratic Effect Estimation: A Two-Step Technique Using Structural Equation Analysis. *Psychological Bulletin*, 119(1), 166-175.
- Ping, Robert A. (1997). Voice in Business-to-Business Relationships: Cost-of-Exit and Demographic Antecedents. *Journal of Retailing*, 73(2), 261-281.
- Ping, Robert A. (1999). Unexplored Antecedents of Exiting in a Marketing Channel. *Journal of Retailing*, 75(2), 218-241.
- Ping, Robert A. (2003). Antecedents of Satisfaction in a Marketing Channel. *Journal of Retailing*, 79(4), 237-248.
- Ping, Robert A. (2004). On Assuring Valid Measures for Theoretical Models Using Survey Data. *Journal of Business Research*, 57(2), 125-141.
- Ping, Robert A. (2005). What Is the Average Variance Extracted for a Latent Variable Interaction (or Quadratic)? Retrieved 10 February, 2010, from <http://www.wright.edu/~robert.ping/ave1.doc>
- Pollak, Robert A. (1970). Habit Formation and Dynamic Demand Functions. *The Journal of Political Economy*, 78(4), 745-763.

## References

- Polo, Yolanda and Sesé, Javier F. (2009). How to Make Switching Costly: The Role of Marketing and Relationship Characteristics. *Journal of Service Research*, 12(2), 119-137.
- Porter, Michael E. (1980). *Competitive Strategy: Techniques for Analyzing Industries and Competitors*. New York: Free Press.
- Porter, Michael E. (1985). *Competitive Advantage*. New York: Free Press.
- Porter, Michael E. (2001). Strategy and the Internet. *Harvard Business Review*, 79(3), 62-79.
- Preacher, Kristopher J. and Hayes, Andrew F. (2008). Asymptotic and Resampling Strategies for Assessing and Comparing Indirect Effects in Multiple Mediator Models. *Behavior Research Methods*, 40(3), 879-891.
- Previti, Denise and Amato, Paul R. (2003). Why Stay Married? Rewards, Barriers, and Marital Stability. *Journal of Marriage and Family*, 65(3), 561-573.
- Ranaweera, Chatura and Prabhu, Jaideep. (2003). The Influence of Satisfaction, Trust and Switching Barriers on Customer Retention in a Continuous Purchasing Setting. *International Journal of Service Industry Management*, 14(3/4), 374-395.
- Raykov, Tenko. (1997). Scale Reliability, Cronbach's Coefficient Alpha, and Violations of Essential Tau-Equivalence with Fixed Congeneric Components. *Multivariate Behavioral Research*, 32(4), 329-353.
- Raykov, Tenko. (1998). Coefficient Alpha and Composite Reliability with Interrelated Nonhomogeneous Items. *Applied Psychological Measurement*, 22(4), 375-385.

## References

- Reibstein, David J. (2002). What Attracts Customers to Online Stores, and What Keeps Them Coming Back? *Journal of the Academy of Marketing Science*, 30(4), 465 - 473.
- Reichheld, Frederick F. (1996). *The Loyalty Effect: The Hidden Force Behind Growth, Profits, and Lasting Value*. Boston, MA.: Harvard Business School Press.
- Reichheld, Frederick F., Markey, Robert G. Jr and Hopton, Christopher. (2000). E-Customer Loyalty—Applying the Traditional Rules of Business for Online Success. *European Business Journal*, 12(4), 173-179.
- Reichheld, Frederick F. and Schefter, Phil. (2000). E-Loyalty: Your Secret Weapon on the Web. *Harvard Business Review*, 78(4), 105-113.
- Reinartz, Werner, Haenlein, Michael and Henseler, Jörg. (2009). An Empirical Comparison of the Efficacy of Covariance-Based and Variance-Based SEM. *International Journal of Research in Marketing*, 26(4), 332-344.
- Ribbink, Dina, Riel, Allard C R van, Liljander, Veronica and Streukens, Sandra. (2004). Comfort Your Online Customer: Quality, Trust and Loyalty on the Internet. *Managing Service Quality*, 14(6), 446-456.
- Rice, Eric. (2002). *The Effect of Social Uncertainty in Networks of Social Exchange*. Phd, University of California, Los Angeles.
- Roberts, Wayne A. (1989). *Towards an Understanding of Relational Commitment*. Phd Doctoral Dissertation, Arizona States University.
- Robinson, John P., Shaver, Phillip R. and Wrightsman, Lawrence S. (1991). Criteria for Selection and Evaluation. In John P. Robinson, Phillip R. Shaver and Lawrence S. Wrightsman (Eds.), *Measures of Personality and Social Psychological Attitudes* (Vol. 1, pp. 1-16). San Diego, Calif.: Academic Press.



## References

- Roy, Rishin, Chintagunta, Pradeep K. and Haldar, Sudeep. (1996). A Framework for Investigating Habits," the Hand of the Past," and Heterogeneity in Dynamic Brand Choice. *Marketing Science*, 15(3), 280-299.
- Rubio, Doris McGartland, Berg-Weger, Marla, Tebb, S. Susan, Lee, E. Suzanne and Rauch, Shannon. (2003). Objectifying Content Validity: Conducting a Content Validity Study in Social Work Research. *Social Work Research*, 27(2), 94-105.
- Rubio, McGartland Doris, Berg-Weger, Marla and Tebb, Susan S. (2001). Using Structural Equation Modeling to Test for Multidimensionality. *Structural Equation Modeling: A Multidisciplinary Journal*, 8(4), 613 - 626.
- Rusbult, Caryl E. (1980). Commitment and Satisfaction in Romantic Associations: A Test of the Investment Model. *Journal of Experimental Social Psychology*, 16(2), 172-186.
- Rusbult, Caryl E. (1983). A Longitudinal Test of the Investment Model: The Development (and Deterioration) of Satisfaction and Commitment in Heterosexual Involvements. *Journal of Personality and Social Psychology*, 45(1), 101-117.
- Rusbult, Caryl E. (1991). Commentary on Johnson's 'Commitment to Personal Relationships'. In W. H. Jones and D. W. Perlman (Eds.), *Advances in Personal Relationships* (Vol. 3). London: Jessica Kingsley.
- Rusbult, Caryl E., Martz, John M. and Agnew, Christopher R. (1998). The Investment Model Scale: Measuring Commitment Level, Satisfaction Level, Quality of Alternatives, and Investment Size. *Personal Relationships*, 5(4), 357-387.
- Rusbult, Caryl E., Olsen, Nils, Davis, Jody L. and Hannon, Peggy A. (2001). Commitment and Relationship Maintenance Mechanism. In John H. Harvey and Amy Wenzel (Eds.), *Close Romantic Relationships*:

## References

- Maintenance and Enhancement* (pp. 87-104). London: Lawrence Erlbaum Associates.
- Rusbult, Caryl E., Zembrodt, Isabella M. and Gunn, Lawanna K. (1982). Exit, Voice, Loyalty, and Neglect: Responses to Dissatisfaction in Romantic Involvements. *Journal of Personality and Social Psychology*, 43(6), 1230-1242.
- Rust, Roland T. and Chung, Tuck Siong. (2006). Marketing Models of Service and Relationships. *Marketing Science*, 25(6), 560-580.
- Rust, Roland T. and Kannan, P. K. (2003). E-Service: A New Paradigm for Business in the Electronic Environment. *Communications of the ACM*, 46(6), 37-42.
- Ruyter, Ko de, Wetzels, Martin and Bloemer, Josée. (1998). On the Relationship between Perceived Service Quality, Service Loyalty and Switching Costs. *International Journal of Service Industry Management*, 9(5), 436-453.
- Samuelson, William and Zeckhauser, Richard. (1988). Status Quo Bias in Decision Making. *Journal of Risk and Uncertainty*, 1(1), 7-59.
- Schmalensee, Richard. (1982). Product Differentiation Advantages of Pioneering Brands. *The American Economic Review*, 72(3), 349-365.
- Schultz, Duane P. (1969). The Human Subject in Psychological Research. *Psychological Bulletin*, 72(3), 214-228.
- Schumacker, Randall E. and Lomax, Richard G. (2004). *A Beginner's Guide to Structural Equation Modeling* (2nd ed.). Mahwah, N.J.: Lawrence Erlbaum Associates.
- Seiders, Kathleen, Voss, Glenn B., Godfrey, Andrea L. and Grewal, Dhruv. (2007). SERVCON: Development and Validation of a Multidimensional

## References

- Service Convenience Scale. *Journal of the Academy of Marketing Science*, 35(1), 144-156.
- Seiders, Kathleen, Voss, Glenn B., Grewal, Dhruv and Godfrey, Andrea L. (2005). Do Satisfied Customers Buy More? Examining Moderating Influences in a Retailing Context. *Journal of Marketing*, 69(4), 26-43.
- Semeijn, J., Van Riel, A.C.R., Van Birgelen, M.J.H. and Streukens, S. (2005). E-Services and Offline Fulfilment: How E-Loyalty Is Created. *Managing Service Quality*, 15(2), 182-194.
- Senecal, Sylvain and Nantel, Jacques. (2004). The Influence of Online Product Recommendations on Consumers' Online Choices. *Journal of Retailing*, 80(2), 159-169.
- Shankar, Venkatesh, Smith, Amy K. and Rangaswamy, Arvind. (2003). Customer Satisfaction and Loyalty in Online and Offline Environments. *International Journal of Research in Marketing*, 20(2), 153-175.
- Shao, Guosong. (2009). Understanding the Appeal of User-Generated Media: A Uses and Gratification Perspective. *Internet Research*, 19(1), 7-25.
- Shapiro, Cal and Varian, Hal R. (1999). *Information Rules: A Strategic Guide to the Network Economy*. Cambridge: Harvard Business School Press.
- Sharma, Neeru and Patterson, Paul G. (2000). Switching Costs, Alternative Attractiveness and Experience as Moderators of Relationship Commitment in Professional, Consumer Services. *International Journal of Service Industry Management*, 11(5), 470-490.
- Sharma, Subhash, Durvasula, Srinivas and Dillon, William R. (1989). Some Results on the Behavior of Alternate Covariance Structure Estimation Procedures in the Presence of Non-Normal Data. *Journal of Marketing Research*, 26(2), 214-221.

## References

- Sheehan, Kim. (2001). E-Mail Survey Response Rates: A Review. *Journal of Computer-Mediated Communication*, 6(2). Retrieved from <http://jcmc.indiana.edu/vol6/issue2/sheehan.html#method>
- Sheehan, Kim B. and McMillan, Sally J. (1999). Response Variation in E-Mail Surveys: An Exploration. *Journal of Advertising Research*, 39(4), 45-54.
- Sheth, Jagdish N. and Parvatiyar, Atul. (1995). Relationship Marketing in Consumer Markets: Antecedents and Consequences. *Journal of the Academy of Marketing Science*, 23(4), 255-271.
- Shevlin, M. and Miles, J. N. V. (1998). Effects of Sample Size, Model Specification and Factor Loadings on the GFI in Confirmatory Factor Analysis. *Personality and Individual Differences*, 25(1), 85-90.
- Shin, Dong-Hee and Kim, Won-Yong. (2008). Forecasting Customer Switching Intention in Mobile Service: An Exploratory Study of Predictive Factors in Mobile Number Portability. *Technological Forecasting and Social Change*, 75(6), 854-874.
- Shrout, Patrick E. and Bolger, Niall. (2002). Mediation in Experimental and Nonexperimental Studies: New Procedures and Recommendations. *Psychological Methods*, 7(4), 422-445.
- Silpakit, Patriya and Fisk, Raymond P. (1985). 'Participatizing' the Service Encounter: A Theoretical Framework. In T.M. Block, G.D. Upah and V.A. Zeithaml (Eds.), *Service Marketing in a Changing Environment* (pp. 117-121). Chicago, IL: American Marketing Association.
- Sindell, Kathleen. (2000). *Loyalty Marketing for the Internet Age*. Chicago, IL: Dearborn Trade.
- Sinha, Indrajit. (2000). Cost Transparency: The Net's Real Threat to Prices and Brands. *Harvard Business Review*, 78(2), 43-50.

## References

- Smith, Michael, D. (2002). The Impact of Shopbots on Electronic Markets. *Journal of the Academy of Marketing Science*, 30(4), 446-454.
- Sobel, Michael E. (1982). Asymptotic Confidence Intervals for Indirect Effects in Structural Equation Models. In S. Leinhardt (Ed.), *Sociological Methodology* (3rd ed., pp. 290-312). San Francisco: Jossey-Bass.
- Srinivasan, Srinivas S., Anderson, Rolph and Ponnavaolu, Kishore. (2002). Customer Loyalty in E-Commerce: An Exploration of Its Antecedents and Consequences. *Journal of Retailing*, 78(1), 41-50.
- Stanton, Jeffrey M. (1998). An Empirical Assessment of Data Collection Using the Internet. *Personnel Psychology*, 51(3), 709-725.
- Steenkamp, Jan-Benedict E. M. and Baumgartner, Hans. (1998). Assessing Measurement Invariance in Cross-National Consumer Research. *Journal of Consumer Research*, 25(1), 78-107.
- Steenkamp, Jan-Benedict E. M. and van Trijp, Hans C. M. (1991). The Use of LISREL in Validating Marketing Constructs. *International Journal of Research in Marketing*, 8(4), 283-299.
- Stiglitz, Joseph E. (1989). Imperfect Information in the Product Market. In Schmalensee Richard and Willig Robert (Eds.), *Handbook of Industrial Organization* (Vol. Volume 1, pp. 769-847): Elsevier.
- Stone, Richard. (1966). The Changing Pattern of Consumption *Mathematics in the Social Sciences and Other Essays*. Cambridge, MA: M.I.T. Press.
- Summers, John O. (2001). Guidelines for Conducting Research and Publishing in Marketing: From Conceptualization through the Review Process. *Journal of the Academy of Marketing Science*, 29(4), 405-415.
- Surra, Catherine A. (1985). Courtship Type: Variations in Interdependence between Partners and Social Networks. *Journal of Personality and Social Psychology*, 49(2), 357-375.

## References

- Sweeney, Jillian C. and Soutar, Geoffrey N. (2001). Consumer Perceived Value: The Development of a Multiple Item Scale. *Journal of Retailing*, 77(2), 203-220.
- Szymanski, David M. and Henard, David H. (2001). Customer Satisfaction: A Meta-Analysis of the Empirical Evidence. *Journal of the Academy of Marketing Science*, 29(1), 16-35.
- Tabachnick, Barbara G. and Fidell, Linda S. (2007). *Using Multivariate Statistics* (5th ed.). Boston: Allyn and Bacon.
- Taylor, Humphrey. (2000). Does Internet Research Work? Comparing Online Survey Results with Telephone Survey. *International Journal of Market Research*, 42(1), 51-63.
- Taylor, James W. (1974). The Role of Risk in Consumer Behavior. *Journal of Marketing*, 38(2), 54-60.
- Thatcher, J. B. and George, J. F. (2004). Commitment, Trust, and Social Involvement: An Exploratory Study of Antecedents to Web Shopper Loyalty. *Journal of Organizational Computing and Electronic Commerce*, 14(4), 243-268.
- Thibaut, John W. and Kelley, Harold H. (1959). *The Social Psychology of Groups*. New York: Wiley.
- Tingling, Peter, Parent, Michael and Wade, Michael. (2003). Extending the Capabilities of Internet-Based Research: Lessons from the Field. *Internet Research*, 13(3), 223-235.
- To, T. (1996). Multi-Period Competition with Switching Costs: An Overlapping Generations Formulation. *Journal of Industrial Economics*, 44(1), 81-87.
- Torres, Ana I. and Martins, Francisco V. (2009). *The Conflicting Role of Online Switching Costs: The Main and Interaction Effects on Customer*

## References

- Retention*. Paper presented at the International Conference of E-Commerce 2009, Algarve, Portugal.
- Triandis, Harry C. (1977). *Interpersonal Behavior*. Monterey, CA: Brooks/Cole Publishing.
- Triandis, Harry C. (1980). *Values, Attitudes, and Interpersonal Behavior*. Paper presented at the Nebraska Symposium on Motivation, 1979: Beliefs, Attitudes, and Value.
- Tsai, Hsien-Tung and Huang, Heng-Chiang. (2007). Determinants of E-Repurchase Intentions: An Integrative Model of Quadruple Retention Drivers. *Information and Management*, 44(3), 231-239.
- Tsai, Hsien-Tung, Huang, Heng-Chiang, Jaw, Yi-Long and Chen, Wen-Kuo. (2006). Why Online Customers Remain with a Particular E-Retailer: An Integrative Model and Empirical Evidence. *Psychology and Marketing*, 23(5), 447-464.
- Vargo, Stephen L. and Lusch, Robert F. (2004). Evolving to a New Dominant Logic for Marketing. *Journal of Marketing*, 68(1), 1-17.
- Vatanasombut, B., Stylianou, A. C. and Igbaria, M. (2004). How to Retain Online Customers. *Communications of the ACM*, 47(6), 64-69.
- Vazquez-Carrasco, Rosario and Foxall, Gordon R. (2006). Positive Vs. Negative Switching Barriers: The Influence of Service Consumers' Need for Variety. *Journal of Consumer Behaviour*, 5(4), 367-379.
- Vázquez-Casielles, R., Suarez-Alvarez, L. and Del Rio-Lanza, A. B. (2009). Customer Satisfaction and Switching Barriers: Effects on Repurchase Intentions, Positive Recommendations, and Price Tolerance. *Journal of Applied Social Psychology*, 39(10), 2275-2302.

## References

- Velicer, Wayne F., Peacock, Andrew C. and Jackson, Douglas N. (1982). A Comparison of Component and Factor Patterns: A Monte Carlo Approach. *Multivariate Behavioral Research*, 17(3), 371 - 388.
- Verplanken, Bas. (2006). Beyond Frequency: Habit as Mental Construct. *British Journal of Social Psychology*, 45(3), 639-656.
- Verplanken, Bas and Aarts, Henk. (1999). Habit, Attitude, and Planned Behaviour: Is Habit an Empty Construct or an Interesting Case of Goal-Directed Automaticity? *European Review of Social Psychology*, 10(1), 101-134.
- Verplanken, Bas, Aarts, Henk and Knippenberg, Ad Van. (1997). Habit, Information Acquisition, and the Process of Making Travel Mode Choices. *European Journal of Social Psychology*, 27(5), 539-560.
- Verplanken, Bas, Aarts, Henk, van Knippenberg, Ad and Moonen, A. (1998). Habit Versus Planned Behaviour: A Field Experiment. *British Journal of Social Psychology*, 37(March), 111-128.
- Verplanken, Bass and Orbell, Sheina. (2003). Reflections on Past Behavior: A Self Report Index of Habit Strength. *Journal of Applied Social Psychology*, 33(6), 1313-1330.
- Verplanken, Bass and Wood, Wendy. (2006). Interventions to Break and Create Consumer Habits. *Journal of Public Policy and Marketing*, 25(1), 90-103.
- Viard, V. Brian. (2007). Do Switching Costs Make Markets More or Less Competitive? The Case of 800 Number Portability. *The RAND Journal of Economics*, 38(1), 146-163.
- Vogel, Verena, Evanschitzky, Heiner and Ramaseshan, B. (2008). Customer Equity Drivers and Future Sales. *Journal of Marketing*, 72(6), 98-108.



## References

- Voss, Glenn B., Parasuraman, A. and Grewal, Dhruv. (1998). The Roles of Price, Performance, and Expectations in Determining Satisfaction in Service Exchanges. *Journal of Marketing*, 62(4), 46-61.
- Wang, Fang. (2004). *Electronic Retailing: An Analysis of Web Impacts and Relationship Marketing Opportunities*. Ph.D., McMaster University, Canada.
- Wathne, Kenneth H., Biong, Harald and Heide, Jan B. (2001). Choice of Supplier in Embedded Markets: Relationship and Marketing Program Effects. *Journal of Marketing*, 65(2), 54-66.
- Weems, Gail H. and Onwuegbuzie, Anthony J. (2001). The Impact of Midpoint Responses and Reverse Coding on Survey Data. *Measurement and Evaluation in Counseling and Development*, 34(3), 166-177.
- Weiss, Allen M. and Anderson, Erin. (1992). Converting from Independent to Employee Salesforces: The Role of Perceived Switching Costs. *Journal of Marketing Research*, 29(1), 101-115.
- Weiss, Allen M. and Heide, Jan B. (1993). The Nature of Organizational Search in High Technology Markets. *Journal of Marketing Research*, 30(2), 220-233.
- West, Stephen G., Finch, John F. and Curran, Patrick J. (1995). Structural Equation Models with Non-Normal Variables: Problems and Remedies. In Rick H. Hoyle (Ed.), *Structural Equation Modeling: Concepts, Issues, and Applications* (pp. 56-75). Thousand Oaks, California: Sage Publications, Inc.
- White, Lesley and Yanamandram, Venkat. (2004). Why Customers Stay: Reasons and Consequences of Inertia in Financial Services. *Managing Service Quality*, 14(23), 183-194.
- Whitten, Dwayne and Green, Kenneth W. (2005). The Effect of Switching Costs on Intent to Switch: An Application in IS Service Provision

## References

- Markets. *International Journal of Mobile Communications*, 3(4), 428-444.
- Whitten, Dwayne and Wakefield, Robin L. (2006). Measuring Switching Costs in It Outsourcing Services. *Journal of Strategic Information Systems*, 15(3), 219-248.
- Widaman, Keith F. and Reise, Steven P. (1997). Exploring the Measurement Invariance of Psychological Instruments: Applications in the Substance Use Domain. In K. J. Bryant, M. Windle and S. G. West (Eds.), *The Science of Prevention: Methodological Advances from Alcohol and Substance Abuse Research* (pp. 281–324). Washington, DC: American Psychological Association.
- Wilcox, Pauline A. and Gurau, Calin. (2003). Business Modelling with Uml: The Implementation of Crm Systems for Online Retailing. *Journal of Retailing and Consumer Services*, 10(3), 181-191.
- Williamson, Oliver E. (1973). Markets and Hierarchies: Some Elementary Considerations. *American Economic Review*, 63(2), 316-325.
- Williamson, Oliver E. (1975). *Markets and Hierarchies: Analysis and Antitrust Implications: A Study in the Economics of Internal Organization*. New York: Free Press.
- Wilson, Bradley. (2010). Using PLS to Investigate Interaction Effects between Higher Order Branding Constructs. In Vincenzo Esposito Vinzi, Wynne W. Chin, Jörg Henseler and Huiwen Wang (Eds.), *Handbook of Partial Least Squares: Concepts, Methods and Applications* (pp. 621-654). Berlin: Springer-Verlag.
- Wilson, Chris M. and Price, Catherine W. (2005). Irrationality in Consumer's Switching Decisions: When More Firms May Mean Less Benefit. *CCPD Working Papers* 05-4. Retrieved from <http://129.3.20.41/eps/io/papers/0509/0509010.pdf>

## References

- Wilson, David T. (1995). An Integrated Model of Buyer-Seller Relationships. *Journal of the Academy of Marketing Science*, 23(4), 335-345.
- Woisetschläger, David M., Lentz, Patrick and Evanschitzky, Heiner. (In Press). How Habits, Social Ties, and Economic Switching Barriers Affect Customer Loyalty in Contractual Service Settings. *Journal of Business Research*, 64(8), 800-808.
- Wood, Wendy and Neal, David T. (2009). The Habitual Consumer. *Journal of Consumer Psychology*, 19(4), 579-592.
- Wood, Wendy, Quinn, Jeffrey M. and Kashy, Deborah A. (2002). Habits in Everyday Life: Thought, Emotion, and Action. *Journal of Personality and Social Psychology*, 83(6), 1281-1297.
- Wttenbraker, John, Gibbs, Brenda Lynn and Kahle, Lynn R. (1983). Seat Belt Attitudes, Habits, and Behaviors: An Adaptive Amendment to the Fishbein Model. *Journal of Applied Social Psychology*, 13(5), 406-421.
- Wu, Mei-Chun and Kuo, Feng-Yang. (2008). An Empirical Investigation of Habitual Usage and Past Usage on Technology Acceptance Evaluations and Continuance Intention. *SIGMIS Database*, 39(4), 48-73.
- Xia, Lan, Monroe, Kent B. and Cox, Jennifer L. (2004). The Price Is Unfair! A Conceptual Framework of Price Fairness Perceptions. *Journal of Marketing*, 68(4), 1-15.
- Xiang, Zheng and Gretzel, Ulrike. (2010). Role of Social Media in Online Travel Information Search. *Tourism Management*, 31(2), 179-188.
- Yanamandram, Venkat and White, Lesley. (2006a). Switching Barriers in Business-to-Business Services: A Qualitative Study. *International Journal of Service Industry Management*, 17(2), 158-192.
- Yanamandram, Venkata K. and White, Lesley. (2006b, 4-6 December 2006). *Exploratory and Confirmatory Factor Analysis of the Perceived*

## References

- Switching Costs Model in the Business Services Sector*. Paper presented at the Australia and New Zealand Marketing Academy Conference (ANZMAC), Brisbane, Queensland.
- Yang, Geng. (2008). *A Test of the Habit Hypothesis on Online Community Participation*. Doctor of Philosophy, University of Texas at Austin.
- Yang, Zhilin. (2001). *Measuring E-Service Quality and Its Linkage to Customer Loyalty*. PhD, New Mexico State University, Las Cruces, New Mexico.
- Yang, Zhilin and Peterson, Robin T. (2004). Customer Perceived Value, Satisfaction, and Loyalty: The Role of Switching Costs. *Psychology and Marketing*, 21(10), 799-822.
- Yi, Youjae. (1990). A Critical Review of Customer Satisfaction 1989. In Valerie A. Zeithaml (Ed.), *Review of Marketing* (Vol. 4, pp. 68-123).
- Yi, Youjae and La, Suna. (2004). What Influences the Relationship between Customer Satisfaction and Repurchase Intention? Investigating the Effects of Adjusted Expectations and Customer Loyalty. *Psychology and Marketing*, 21(5), 351-373.
- Yim, Chi Kin (Bennett), Chan, Kimmy Wa and Hung, Kineta. (2007). Multiple Reference Effects in Service Evaluations: Roles of Alternative Attractiveness and Self-Image Congruity. *Journal of Retailing*, 83(1), 147-157.
- Zauberman, Gal. (2003). The Intertemporal Dynamics of Consumer Lock-In. *Journal of Consumer Research*, 30(3), 405-419.
- Zeelenberg, Marcel and Pieters, Rik. (2004). Beyond Valence in Customer Dissatisfaction: A Review and New Findings on Behavioral Responses to Regret and Disappointment in Failed Services. *Journal of Business Research*, 57(4), 445-455.

## References

- Zeithaml, Valarie A. (1981). How Consumer Evaluation Processes Differ between Goods and Services. *Marketing of Services*, 9(1), 25-32.
- Zeithaml, Valarie A., Berry, Leonard L. and Parasuraman, A. (1996). The Behavioral Consequences of Service Quality. *Journal of Marketing*, 60(2), 31-46.
- Zhao, Xinshu, Lynch, John G. and Chen, Qimei. (2010). Reconsidering Baron and Kenny: Myths and Truths About Mediation Analysis. *Journal of Consumer Research*, 37(2), 197-206.
- Zikmund, William G. (2003). *Business Research Method*. Ohio: Thomson Learning.

## **APPENDIX: Questionnaire**

Date:

click to type delivery address

*Doctoral Programme Office,  
Warwick Business School,  
The University of Warwick,  
Coventry CV4 7AL*

Dear respondent,

**ONLINE RETAILER EXPERIENCE**

We are conducting a study at the University of Warwick looking at individuals' **opinions about their online retailer**. You have been chosen at random to participate in this study from a database of UK residents with internet access.

If you have any experience purchasing via the internet in the past 12 months, we would be grateful if you could spend a few minutes to take part in this survey. This survey should take you about 15 minutes to complete. Your input is very valuable and important. *In appreciation for your help, a 50p donation will be made to the Gulson (Children) Hospital in Coventry for each completed survey that is returned.*

*In addition*, you may choose to be entered into a prize draw for a chance to win either:

- 1. A £100 donation to a charity of your choice or a £100 cash prize**
- 2. One of ten (10) Amazon.co.uk gift vouchers, worth £10 each**

(If you are interested in entering the prize draw, please complete the prize draw form as attached)

Would you please complete the attached survey and return it as soon as possible in the enclosed postage-paid envelope within **7 days**? Alternatively, you may choose to complete the survey online at the following website:

**<http://www.surveymk.com/warwick>**

Please be assured that the data obtained will be used for the purpose of this research **only**. Your answers will be kept **confidential** and your responses will not be linked to you personally; they will be reported as a group.

If you have any questions, feel free to contact us. We greatly appreciate your time and help.

Sincerely,



**Ms. Ezlika Ghazali**

**E** Ezlika.Ghazali06@phd.wbs.ac.uk

**T** 024 76522546



THE UNIVERSITY OF  
**WARWICK**

## **Internet Shopping Experience**

A Warwick Business School Research Project

*As mentioned in the introductory letter, apart from the opportunity to be entered into a prize draw, a 50p donation will be made to the Gulson (Children) Hospital in Coventry for each completed survey that is returned*

*It may be much quicker and convenient for you to complete the survey online at:*

**<http://www.surveymk.com/warwick>**

**IMPORTANT NOTE:**

If you have **NOT** made any internet purchases during the past 12 months, you should **NOT** take part in this survey. We thank you for your cooperation and interest in this study.

**INSTRUCTIONS**

*This survey asks you a number of questions concerning the online retailer from which you frequently make purchases and your general shopping habits with this online retailer. Although many of the questions may sound similar, it is important that you answer them **ALL**<sup>51</sup>. Please remember that there are no right or wrong answers. We are interested in your thoughts and opinions. Your answers are completely confidential.*

*Please TICK ☒ and/or WRITE in the appropriate spaces.*

*If you decide to change a response, simply cancel the existing one and insert your new response.*

**PRELIMINARY QUESTIONS**

- Please think of the **ONE online retailer** from which you have **PURCHASED MOST FREQUENTLY** during the past **12 months**.
- This company should **not** be an online auction site, such as eBay.
- Most of the questions contained in this survey relate to your thoughts and opinions about your online shopping experiences with this **specific retailer**.

1. **What is the name of this retailer?**

2. **Please indicate the web address:**  
(if you can remember it)

3. **Does this retailer also operate offline (for example through catalogue or traditional shops)?**

☐ Yes    ☐ No    ☐ Don't know

<sup>51</sup> **NOTE:** Wordings for the online version of the questionnaire: "Although many of the questions may sound similar, it is important that you answer all questions. If you miss any of them a pop-up reminder will appear immediately."

<b>YOUR PURCHASES WITH THIS ONLINE RETAILER</b>
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4. When did you **first begin** purchasing **online** via this retailer's website?
- ☐ Within the last month
  - ☐ Within the last 3 months
  - ☐ Within the last 6 months
  - ☐ Within the last year
  - ☐ Within the last 2 years
  - ☐ Within the last 3 years
  - ☐ More than 3 years ago
5. How frequently do you **visit** the website of this retailer (whether or not you make a purchase)?
- ☐ More than once a week
  - ☐ About once a week
  - ☐ About once or twice a month
  - ☐ About once every 2 months
  - ☐ About once a quarter (every 3 months)
  - ☐ About 1 – 3 times per year
6. How frequently do you make **online purchases** via this website?
- ☐ More than once a week
  - ☐ About once a week
  - ☐ About twice a month
  - ☐ About every 2 months
  - ☐ About once a quarter (every 3 months)
  - ☐ About 1 – 3 times per year
7. How many times (total) have you purchased **online** from this retailer in the past **1 year**?
- ☐ 1 – 2 times
  - ☐ 3 – 5 times
  - ☐ 6 – 15 times
  - ☐ 16 – 25 times
  - ☐ More than 25 times
8. How much do you **spend per transaction** with this online retailer (approximately)?
- ☐ Less than £10
  - ☐ £10-£15
  - ☐ £16-£25
  - ☐ £26-£40
  - ☐ £41-£70
  - ☐ £71-£100
  - ☐ £101-£500
  - ☐ More than £500

9. Choose **1 (ONE)** specific product you purchase **MOST FREQUENTLY** via this website?  
[Please tick ☒ only **1 box**]

<input type="checkbox"/> Travel Tickets	<input type="checkbox"/> Cinema Tickets	<input type="checkbox"/> Groceries	<input type="checkbox"/> Home Furnishings
<input type="checkbox"/> Holidays	<input type="checkbox"/> Music Downloads	<input type="checkbox"/> Take-away Food	<input type="checkbox"/> Insurance
<input type="checkbox"/> Accommodation Bookings	<input type="checkbox"/> Garden Products / Tools	<input type="checkbox"/> Cars / Accessories	<input type="checkbox"/> Flowers / Greetings / Gifts
<input type="checkbox"/> Clothes / Shoes / Accessories	<input type="checkbox"/> Office / School Supplies	<input type="checkbox"/> Concert / Theatre / Festival Tickets	<input type="checkbox"/> Computers / Computer Equipment
<input type="checkbox"/> Books	<input type="checkbox"/> Toys	<input type="checkbox"/> Mobile phones	<input type="checkbox"/> Other:  _____  _____ (Please specify)
<input type="checkbox"/> Beauty Products	<input type="checkbox"/> Computer Games	<input type="checkbox"/> Software	
<input type="checkbox"/> CDs / DVDs	<input type="checkbox"/> Sports Equipment	<input type="checkbox"/> Electrical Goods	

10. Apart from the product already specified above, do you also purchase other product(s) from the website?

☐ Yes ☐ No

If 'Yes' please indicate the product(s) by ticking **AS MANY** boxes as necessary?

<input type="checkbox"/> Travel Tickets	<input type="checkbox"/> Cinema Tickets	<input type="checkbox"/> Groceries	<input type="checkbox"/> Home Furnishings
<input type="checkbox"/> Holidays	<input type="checkbox"/> Music Downloads	<input type="checkbox"/> Take-away Food	<input type="checkbox"/> Insurance
<input type="checkbox"/> Accommodation Bookings	<input type="checkbox"/> Garden Products / Tools	<input type="checkbox"/> Cars / Accessories	<input type="checkbox"/> Flowers / Greetings / Gifts
<input type="checkbox"/> Clothes / Shoes / Accessories	<input type="checkbox"/> Office / School Supplies	<input type="checkbox"/> Concert / Theatre / Festival Tickets	<input type="checkbox"/> Computers / Computer Equipment
<input type="checkbox"/> Books	<input type="checkbox"/> Toys	<input type="checkbox"/> Mobile phones	<input type="checkbox"/> Other:  _____  _____ (Please specify)
<input type="checkbox"/> Beauty Products	<input type="checkbox"/> Computer Games	<input type="checkbox"/> Software	
<input type="checkbox"/> CDs / DVDs	<input type="checkbox"/> Sports Equipment	<input type="checkbox"/> Electrical Goods	

<b>YOUR SHOPPING EXPERIENCE WITH THIS ONLINE RETAILER</b>
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**11.** Please indicate your **level of agreement** with the following with regards to this retailer.

	<i><b>Strongly Disagree</b></i>		<i><b>Neither</b></i>			<i><b>Strongly Agree</b></i>	
I am pleased with the overall service.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Shopping here is a delightful experience.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Overall, I am completely satisfied with my shopping experience.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
When I think about my shopping experience here, I am generally pleased.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**12.** Please indicate your **level of agreement** with the following with regards to this retailer.

	<i><b>Strongly Disagree</b></i>		<i><b>Neither</b></i>			<i><b>Strongly Agree</b></i>	
I am <b>unlikely</b> to switch to another online retailer in the near future.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
When I have a need for this type of product, I will use only this online retailer.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I would not even consider another online retailer for this product.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I will continue to do business with this online retailer even if its prices increase somewhat.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I am <b>not</b> loyal to this online retailer.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
When I need this type of product, using this website is an obvious choice for me.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I remain a customer of this website out of habit.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
When I need this type of product, visiting this website has become automatic.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

<b>YOUR OPINIONS ABOUT SWITCHING ONLINE RETAILER</b>
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Questions 13 to 18 below will look at your opinions about **switching/changing** your shopping activities from this website to another one.

**13.** Please indicate your **level of agreement** with the following:

	<i>Strongly Disagree</i>		<i>Neither</i>		<i>Strongly Agree</i>	
Switching means I need to learn new routines and way of doing things on a new website.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Getting used to a new website after I switch would be very easy.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Switching my shopping activities to another online retailer would require too much learning.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I feel that the competitors' websites are difficult to use.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I am reluctant to change online retailer because I am familiar with 'how the system works' on this website.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
It takes time/effort to understand how to use other online retailer's website.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**14.** Please indicate your **level of agreement** with the following:

	<i>Strongly Disagree</i>		<i>Neither</i>		<i>Strongly Agree</i>	
I feel more comfortable shopping on this website than on their competitors' websites.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The brand of this retailer plays a major role in my decision to stay.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I do not care about the brand/company name of the online retailer that I use to buy this product.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I stay because I like the public image of the retailer.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**15.** Please indicate your **level of agreement** with the following:

	<i><b>Strongly Disagree</b></i>		<i><b>Neither</b></i>		<i><b>Strongly Agree</b></i>	
I am concerned about the security of my personal information when registering on a new website.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I worry that switching my shopping activities to another website would result in some unexpected problems.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
If I were to change online retailer, I fear that the service I would receive might deteriorate.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
It would be inconvenient for me to switch to another online retailer.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Switching to another online retailer would be risky, since I wouldn't know the quality of its products/services.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**16.** Please indicate your **level of agreement** with the following:

	<i><b>Strongly Disagree</b></i>		<i><b>Neither</b></i>		<i><b>Strongly Agree</b></i>	
I hesitate to switch from this online retailer because it offers privileges I would not receive elsewhere.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I receive special rewards and discounts from doing business with this online retailer.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I will lose the benefits of being a long-term customer if I leave my online retailer.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Staying loyal gives me discounts and special deals.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Staying loyal saves me money.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Switching to another online retailer would probably involve hidden cost/charges.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
There are several financial costs/charges I would incur if I were to stop doing business with this online retailer.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

17. What do you **think of or know about** competitors?

	<i>Strongly Disagree</i>		<i>Neither</i>		<i>Strongly Agree</i>	
If I had to change online retailer, I know of another which is just as good.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Compared to this online retailer, there are <b>not</b> many competitors with whom I could be satisfied.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The only difference between the major online retailers of this type of product is price.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I feel that an alternative online retailer is better than this one.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
To my mind, another online retailer is closer to my ideal.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I could be buying from a competing website and not notice much difference.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I would probably be just as happy with the service of another online retailer.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The quality of offering varies greatly between competing websites.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
My experience with the competitors is limited.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

18. How comfortable are you in **finding and evaluating** competitors?

	<i>Strongly Disagree</i>		<i>Neither</i>		<i>Strongly Agree</i>	
I <b>don't</b> like spending time searching for a new online retailer.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
If I wanted to change online retailer, I would <b>not</b> have to search very hard to find a new one.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I cannot afford the time/effort to evaluate alternative online retailers fully.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comparing the competitors in order to work out which best suits my needs is a time-consuming task.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I <b>don't</b> think that the process of evaluating a new online retailer prior to switching would be hassle.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



<b>ABOUT YOU</b>
------------------

Please tell us a little bit about yourself.

Rest assured that any personal information you provide will (i) remain confidential (ii) will ONLY be reported in aggregate (group) form.

These questions are necessary for a more meaningful interpretation of our research results.

Please tick ☒ only 1 box in each category:

**19. Gender**

- ☐ **Male**  
☐ **Female**

**20. Age**

- ☐ **16 – 24**  
☐ **25 – 34**  
☐ **35 – 44**  
☐ **45 – 54**  
☐ **55 – 64**  
☐ **65 and over**

**21. Highest level of formal education**

- ☐ **GCSE**  
☐ **A-level or equivalent**  
☐ **Further Education (e.g. College)**  
☐ **University First Degree**  
☐ **Master's Degree**  
☐ **Doctorate**  
☐ **Other:** \_\_\_\_\_ (please specify)

**22. Personal income per year**

- ☐ **Less than £15,000**  
☐ **£15,000 - £19,999**  
☐ **£20,000 - £24,999**  
☐ **£25,000 - £29,999**  
☐ **£30,000 - £49,999**  
☐ **£50,000 - £75,000**  
☐ **£75,000 and above**  
☐ **I prefer not to say**

**23. Ethnicity**

- ☐ **White** (British / English / Irish / Scottish / Welsh / Others e.g. Italian, Greek etc.)  
☐ **Black or Black British** (Caribbean / African / Other Black background / All Black groups)  
☐ **Mixed** (White and Black Caribbean / White and Black African / White and Asian / Other mixed background)  
☐ **Asian or Asian British** (Indian / Pakistani / Bangladeshi / Other Asian background / All Asian groups)  
☐ **Other Ethnic groups** \_\_\_\_\_ (please specify)  
☐ **I prefer not to say**

**END OF SURVEY**

<b>THANK YOU. WE GREATLY APPRECIATE YOUR INPUT TO THIS STUDY.</b> <b>PLEASE RETURN THE COMPLETED SURVEY USING THE FREEPOST ENVELOPE PROVIDED.</b>
--

**PRIZE DRAW ENTRY FORM**

Thank you for your help in completing the survey.

If you would like to have a chance to win one of the prizes in our 'respondents' draw, please provide us with your email **or** your name and address [note: *this is, of course, strictly voluntary*], so that we can notify you should you win and arrange for the delivery of your prize. This information **will not** be used for any other purpose. [If you change your email or address before July 2009, please notify us via email: Ezlika.Ghazali06@phd.wbs.ac.uk]

If you chose to complete the survey **online** instead of using the paper-based version, please complete the prize draw entry form **online as well**.

Please complete this form in CAPITAL LETTERS and send it, together with the completed booklet survey, within **7 days**.

Your email:

**or**

Your name and address:

If you win the £100 prize, to which type of charitable organisation would you wish the money to go? [Tick ☒ **only 1 box**]

- ☐ **Animal Welfare**
- ☐ **A children's Charity**
- ☐ **Disaster Relief/Third World**
- ☐ **Human Rights**
- ☐ **Medical Research**
- ☐ **A Religious Charity**
- ☐ **A Disabilities Charity**
- ☐ **A Charity of my choice:** \_\_\_\_\_ (please specify)
- ☐ **I will have the cash myself**

All of the lucky respondents will be notified via email or by post in July 2009. A failure to respond to our email within 3 months will result in the money being donated to a charity of our choice.

The results of the draw will be published  
on **www.ezlika.com/prizewinners** in July 2009